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A MORE SUSTAINABLE SUPPLY CHAIN

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COMPANIES TEND TO FOCUS ON THEIR TOP-TIER SUPPLIERS, BUT **THE REAL RISKS COME LOWER DOWN.**

PHOTOGRAPHER **EDWARD BURTYNSKY**

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ABOUT THE ART
Edward Burtynsky's photographs explore the manufacturing landscapes of China and their central role in the global supply chain.

IN RECENT YEARS

a rising number of multinational corporations have pledged to work only with suppliers that adhere to social and environmental standards. Typically, these MNCs expect their first-tier suppliers to comply with those standards, and they ask that those suppliers in turn ask for compliance from *their* suppliers—who ideally ask the same from *their* suppliers. And so on. The aim is to create a cascade of sustainable practices that flows smoothly throughout the supply chain, or, as we prefer to call it, the supply network.

It's an admirable idea, but it's been hard to realize in practice. Many of the MNCs that have committed to it have faced scandals brought about by suppliers that, despite being aware of sustainability standards, have nevertheless gone on to violate them. Consider the embarrassing scrutiny that Apple, Dell, and HP endured not long ago for sourcing electronics from overseas companies that required employees to work in hazardous conditions, and the fallout that Nike and Adidas suffered for using suppliers that were dumping toxins into rivers in China.

What's more, all those scandals involved first-tier suppliers. The practices of lower-tier suppliers are almost always worse, increasing companies' exposure to serious financial, social, and environmental risks. In this article we describe various ways that MNCs can defuse the ticking time bomb those risks represent.

WHERE THE PROBLEMS ARE

To understand the situation and develop ideas for tackling it, we conducted a study of three supply networks. Each was headed by an MNC considered to be a "sustainability

IDEA IN BRIEF

THE PROBLEM
Many multinational corporations have committed themselves to using suppliers with sustainable social and environmental practices, but suppliers—especially those low in the supply chain—often don't comply with standards. This poses serious financial, social, and environmental risks.

THE RESEARCH
The authors studied the supply networks of three MNCs considered to be sustainability leaders. They discovered a set of best practices—but also saw how difficult it can be to enforce standards.

THE SOLUTION
Awareness is key. Companies should consider adopting the best practices featured in this article, such as establishing long-term sustainability goals and including lower-tier suppliers in an overall sustainability strategy.

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leader"—one in the automotive industry, one in electronics, and one in pharmaceuticals and consumer products. (For the specific selection criteria, see the "About the Research" sidebar.) We also studied a representative set of each MNC's suppliers—a total of nine top-tier and 22 lower-tier suppliers, based variously in Mexico, China, Taiwan, and the United States. What we discovered was that many were violating the standards that the MNCs expected them to adhere to. The hoped-for cascade effect was seldom occurring.

We found problems in every country we studied. In Mexico we visited five lower-tier suppliers; all lacked environmental management systems, and four lacked procedures for handling red-flag social problems such as sexual harassment, retaliation by supervisors, and hazardous labor conditions. At three of the companies, temporary workers made up nearly 50% of the workforce, and turnover rates sometimes reached 100%, making it difficult to implement viable environmental, health, and safety programs. In China and Taiwan we visited 10 lower-tier suppliers, all of which had marginal environmental practices, dangerous working conditions, and chronic overtime issues. In the United States we studied seven lower-tier suppliers and found that three had high concentrations of airborne chemicals and a lack of systematic accident reporting.

The pattern is worrisome. Remember, all those suppliers were connected to model firms that were working proactively to encourage sustainability. If exemplary MNCs are having trouble ensuring good practices among their lower-tier suppliers, then "regular" firms, in all likelihood, are faring even worse at this.

The problem, ironically, often starts with the MNCs themselves. They frequently place orders that exceed suppliers' capacity or impose unrealistic deadlines, leading supplier factories to demand heavy overtime from their workers. When we asked a representative at one supplier why his company had violated a 60-hour workweek limit, he gave us a frank explanation: "We didn't want to tell our customer that we can't produce its products on time, because otherwise it's going to try to find someone else that can. But our customer didn't give us enough notice to hire enough skilled people to do the job."

First-tier suppliers, for their part, rarely concern themselves with their own suppliers' sustainability practices. That's often because they're struggling with sustainability issues themselves. The noncompliant company we cited above, for example, doesn't try to enforce a strict 60-hour workweek limit with any of its suppliers. "We don't comply with this requirement ourselves," the representative told us, "so how could we ask our own suppliers to do so?"

For MNCs, there are special challenges in governing lower-tier suppliers. There's often no direct contractual relationship, and a particular MNC's business often doesn't mean that much to the lower-tier supplier. If American and Japanese automakers rely heavily on a certain seat maker, for example, they can demand that it adhere to their sustainability standards. But that seat maker may have a hard time getting *its* suppliers to follow suit. Suppose it does business with a foam manufacturer that has many other big customers in the electronics, appliance, and health care industries—each of which has different sustainability standards. The foam manufacturer has little incentive to conform to the automakers' sustainability requirements, because the automakers account for only a small fraction of its total business.

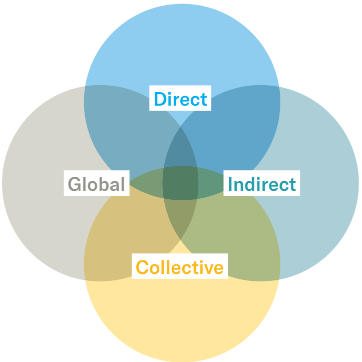
Furthermore, most lower-tier suppliers are not well known, so they receive relatively little attention and pressure from the media, NGOs, and other stakeholders. Even when they do attract attention (for sexual harassment problems, for example, or chronic overtime demands), we found that they do not feel the need to address the issues involved. They tend to act only when MNCs intervene.

Lower-tier suppliers are also the least equipped to handle sustainability requirements. They often do not have sustainability expertise or resources, and they may be unaware of accepted social and environmental practices and regulations. They are also frequently located in countries where such regulations are nonexistent, lax, or not enforced at all. And typically they don't know much about the sustainability requirements imposed by MNCs—but even if they do, they have no incentive to comply. This may explain why most of the lower-tier suppliers in our study lacked programs to dispose of toxic waste and in fact had no environmental management program whatsoever.

MNCs, too, are handicapped by ignorance. They frequently don't even know who their lower-tier suppliers are, let alone where they're located or what capabilities they have (or don't have). Many of the 22 lower-tier suppliers in our study are small or medium-size private firms that provide little information to the public—characteristics that, in effect, make them almost invisible. Several directors of the three MNCs we studied viewed this as a big problem. "The demon in this place," one of them said, "is the [lower-tier] suppliers that I know the least about." Another said, "I don't have control over the ones that pose the highest risks, so I'm losing sleep over them."

Managing Lower-Tier Supplier Sustainability

Ideally, multinational corporations will use a combination of approaches—direct, indirect, collective, and global—to encourage sustainable practices throughout their supply networks. Some specific strategies within each type of approach are listed below.



Direct

- Evaluate first-tier suppliers by using sustainability performance indicators that capture their requirements for lower-tier suppliers.
- Survey suppliers on their environmental, health, safety, and labor practices and on their procurement practices.
- Work with major first-tier suppliers to map the firm's supply network.

Indirect

- Provide training and foster peer learning among first-tier suppliers to help them improve their procurement practices with lower-tier suppliers.
- Select high-performing suppliers to pilot new sustainability initiatives.
- Reward suppliers for cascading sustainability requirements to lower-tier suppliers.

Collective

- Commit to developing and complying with industrywide sustainability standards, and help suppliers become full members of industry organizations.
- Via industry organizations, share resources with competitors and major suppliers to achieve sustainability goals.
- Encourage first- and lower-tier suppliers to take advantage of sustainability training programs offered by industry organizations.

Global

- Work closely with relevant NGOs and international institutions interested in improving supply chain sustainability.
- Use tools and data that those organizations provide for dealing with suppliers (contracts and scorecards).
- Recognize suppliers that excel in programs sponsored by NGOs and international institutions.

All these concerns mean that lower-tier suppliers are unquestionably the riskiest members of a supply network. If they have poor or dubious sustainability performance, then an MNC that does business with them can endanger its reputation and suffer profound repercussions—losing customers, being forced to find new suppliers, or having its supply chain disrupted. To reduce such risks, MNCs need to include both first-tier and lower-tier suppliers in their sustainability programs.

BEST PRACTICES

The three MNCs in our study have taken a number of steps to promote suppliers' social and environmental responsibility:

- They have established long-term sustainability goals.
- They require first-tier suppliers to set their own long-term sustainability goals.
- They include lower-tier suppliers in the overall sustainability strategy.
- They task a point person on staff with extending the firm's sustainability program to first- and lower-tier suppliers.

These are all beneficial measures that other companies should consider adopting. Firms can also borrow some of the specific strategies that our MNCs use to spread good practices throughout their supply networks. (See the exhibit "Managing Lower-Tier Supplier Sustainability.") These fall into four broad categories:

Direct approach. The MNCs we studied set and monitor social and environmental targets for their first-tier suppliers regarding second-tier suppliers. The automotive corporation, for instance, has a strong commitment to supplier diversity. It requires its first-tier suppliers to allocate 7% of their procurement spending to minority suppliers. Some first-tier suppliers were already meeting that target; others have made substantial changes to do so (for example, by changing performance criteria for their purchasing managers). The first-tier suppliers we interviewed noted that the MNC periodically checks to see if the target is being met and creates opportunities to help them network with minority lower-tier suppliers.

Another MNC annually surveys its first-tier suppliers to gather information not only about their health, safety, labor, and environmental practices but also about the sustainability

performance of their lower-tier suppliers. The surveys seem to be having the desired effect: They've prompted first-tier suppliers to engage in internal discussions about whether they should and could alter their procurement practices (to adopt industrywide sustainability standards, for example). And on two occasions, firms have made changes to comply with MNC requirements (such as using key performance indicators to monitor supplier sustainability).

Additionally, the three MNCs work with their major suppliers to map the connections and interdependencies in their supply networks, including those at the lower-tier level. This allows them to identify potentially risky lower-tier suppliers and to work with the major suppliers to deploy customized risk-mitigation programs where needed.

Indirect approach. The MNCs we studied delegate elements of lower-tier-supplier sustainability management to their first-tier suppliers. This approach is effective because the MNCs are hands-on: They offer training to suppliers and provide some incentives for implementing sustainability practices. Most of the first-tier suppliers we interviewed told us that such training had led them to make substantial changes in their manufacturing processes and to begin asking *their* suppliers to adopt similar sustainability standards.

The three MNCs have also created preferred-supplier programs aimed at fostering peer learning about sustainability. One corporation, for instance, invites its most socially and environmentally responsible suppliers to join an exclusive group that enables them to strengthen relationships with the MNC and exchange best sustainability practices with one another. Several of these suppliers have started to set their own sustainability requirements for the suppliers they use.

To further encourage first-tier suppliers to cascade the MNCs' sustainability requirements into their own supply networks, MNCs can use supplier sustainability awards, long-term contracts, and preferred status.

Collective approach. Our MNCs collaborate with their competitors and major suppliers to develop and disseminate industrywide sustainability standards. They recognize that a single MNC cannot be expected to fight alone against the problematic labor or environmental practices of global suppliers. Doing so would be not only prohibitively expensive but also unfair, because in most sectors, the major corporations use many of the same suppliers.

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All the procurement employees we interviewed said they needed more training to properly pursue supplier sustainability on behalf of their firms.

The MNCs we studied are all founding members of industry associations focused on developing sustainability standards, providing assessment tools, and offering training to first- and lower-tier suppliers. One notable association is the Responsible Business Alliance (RBA), whose members include Intel, HP, IBM, Dell, Philips, and Apple.

Collaborative initiatives have many benefits. They can increase efficiencies for suppliers, who can use a standardized self-assessment or audit to satisfy many customers and thus avoid duplication. These initiatives can also draw in more suppliers, because suppliers that have many customers with the same sustainability requirements tend to be more willing to participate. And collaboration can make sustainability initiatives more feasible, because industrywide training is subsidized by members.

Additionally, when MNCs help their first-tier suppliers become full members of an industry association, those suppliers must then comply with industry standards, which means they have to assess their own suppliers' sustainability. The RBA, for example, requires its full members to conduct approved audits annually for at least 25% of their own high-risk facilities *and* 25% of their high-risk suppliers' facilities. (Risk here is assessed along labor, health and safety, environmental, and ethical dimensions.)

Industry associations have a unique power over both first- and lower-tier suppliers, as most of their members are major players in their sectors. Consider the electronics maker Flex, a full member of the RBA and a first-tier supplier for many MNCs. A second-tier electronics supplier is unlikely to refuse a request from Flex for a compliance audit, because it knows that Flex itself has passed this audit and that most other top-tier electronics suppliers, to stay competitive, will probably start issuing similar audit requests.

Global approach. The MNCs we studied make a point of collaborating with international organizations and NGOs that share their goals. For instance, all three corporations have joined the United Nations Global Compact, an international effort to promote corporate social responsibility. The three MNCs also participate in the Carbon Disclosure Project's (CDP's) Supply Chain Program, a global data-collection platform in which suppliers disclose information about their carbon emissions. Firms such as Microsoft, Johnson & Johnson, and Walmart use this platform to engage their suppliers in being transparent about their environmental impact. Several participating suppliers told us that as a result, they are now collecting previously unsolicited information and making investments to try to reduce their carbon footprints.

The progress is encouraging: According to the CDP's 2019 supply chain report, 35% of the program members engaged with their suppliers on climate change in 2018, up from 23% the year before. Additionally, the report noted, "as suppliers become more mature in their understanding of sustainability issues and advance their approaches for taking action, there is evidence that they too are improving in their efforts to cascade positive change downwards through their own supply chains." This is occurring not only because MNCs have asked their suppliers to disclose their carbon emissions but also because that information influences how the MNCs contract with suppliers. One of the corporations we studied has created an award to recognize the suppliers that have improved the most in terms of CDP Supply Chain Program performance. Another MNC includes the program's ratings in its supplier scorecard and monitors those ratings annually.

ROOM FOR IMPROVEMENT

The MNCs in our study have successfully addressed some of the problematic sustainability practices of their suppliers. But as we've already noted, there's plenty of room for improvement in what they're doing. In our research, we identified a few critical shortcomings in their operations when it comes to developing sustainability beyond first-tier suppliers.

First, the MNCs' engineering and procurement units often preapprove lower-tier suppliers, but their vetting criteria don't include social and environmental considerations. In other words, engineering and procurement address only the first of the proverbial three Ps of sustainability (profit), focusing on such issues as cost, quality, delivery, and technology, while overlooking the second and third Ps (people and the planet). Not surprisingly, that can lead to situations in which preapproved lower-tier suppliers violate the sustainability requirements of the MNCs they work with. The first-tier suppliers are then in a tough spot. Like it or not, they have to work with preapproved suppliers—but they are held accountable if those companies mistreat workers or harm the environment. As one exasperated manager said while describing this conundrum, "I am just using the supplier you asked me to use!"

Such predicaments are not uncommon. Different functional units of an MNC (engineering, procurement, sustainability) may pursue different agendas in interacting with first- and lower-tier suppliers—with results that do systemic damage to the corporation's overall sustainability effort and undermine its credibility. To avoid this, MNCs should set convergent sustainability goals and align the incentives for *all* functions that interact with first- and lower-tier suppliers.

A second problem is lack of sustainability training and incentives for procurement officers. All of the 52 procurement employees we interviewed (at MNCs and at suppliers) said they needed more training to properly pursue supplier sustainability on behalf of their firms. Arguably, they need more incentives as well: Companies must reward them for hitting all three Ps—that is, not just cost, quality, and delivery goals but also social and environmental ones. Our research suggests that isn't yet happening in a meaningful way. For the procurement professionals we interviewed, cost savings were unquestionably the top priority, followed by quality improvement and on-time delivery. Social and environmental concerns were notably absent. We should add that although companies at every level of the supply network need to provide more training and incentives for their procurement officers, supplier firms are likely to do so only if MNCs lead the way.

A third shortcoming we observed is that although our three MNCs devote considerable effort to developing their first-tier suppliers' sustainability capabilities, they have little direct contact with their first-tier suppliers' procurement personnel. As a result, those people are poorly informed about the MNCs' sustainability requirements and cannot communicate them clearly to their own suppliers, much less enforce them. To alleviate that problem, MNCs could invite suppliers' procurement personnel to their sustainability training sessions (along with environmental, health, and safety personnel) and encourage them to participate in industrywide sustainability training. Alternatively, MNCs could engage the top executives at their first-tier suppliers and explain the importance of building a sustainable supply network, with the goal of motivating them to catalyze the dissemination of sustainability requirements to lower-tier suppliers.

MANY MULTINATIONAL CORPORATIONS sincerely want to embed fair labor practices and environmental responsibility throughout their supply networks. A good way to start is by adopting the sustainability strategies used by the three MNCs in our study. But all corporations can and should do more. They should send their suppliers a more consistent message that economic, social, and environmental requirements are *all* important. They should make the same message clear to their procurement officials and create incentives for them to pursue not only economic goals but also environmental and social goals. Those officials should take a hands-on approach to collecting data about suppliers' capacity, monitoring indicators of their sustainability performance, and engaging with them in continuous improvement projects. The MNCs should also work directly with their suppliers' procurement units on the best ways to disseminate sustainability requirements throughout their supply networks. The danger of not acting is clear: A supply chain is only as strong as its weakest link.

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About the Research

We focused our study on three "exemplary" multinational corporations that met five selection criteria: (1) They were included in the Dow Jones Sustainability Index. (2) They were members of the Carbon Disclosure Project (CDP) and the United Nations Global Compact. (3) They had been involved in industrywide supply-chain sustainability efforts. (4) They were certified as having a large percentage of plants with effective quality-management systems (ISO 9001), environmental management systems (ISO 14001), and safety-management systems (OHSAS 18001). (5) They were members of the Billion Dollar Roundtable (firms spending at least $1 billion with minority- and women-owned suppliers).

We also interviewed representatives of industry associations (including the Responsible Business Alliance and the Automotive Industry Action Group) and NGOs (including the CDP and the Centre for Reflection and Action on Labour Rights) to gain a more comprehensive view of how each of these stakeholders helps MNCs disseminate their sustainability agendas throughout their supply networks.

For more information about the research, see "The Missing Link? The Strategic Role of Procurement in Building Sustainable Supply Networks," by Verónica H. Villena, *Production and Operations Management* (May 2019), and "On the Riskiness of Lower-Tier Suppliers: Managing Sustainability in Supply Networks," by Verónica H. Villena and Dennis A. Gioia, *Journal of Operations Management* (November 2018).

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