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VIEWPOINT

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## The Real Disaster: Inadequate Preparation

Globalization's growing impact means disruptions in one place are felt far and wide. Few companies have sufficient strategies

In the past five years, businesses have had to deal with September 11, SARS, port strikes, hurricanes, and a possible pandemic. Though planning for low-probability, high-impact events is low on many executives' task list (only 32% have a plan), not planning isn't a strategy.

Almost a year ago, AMR Research received a call from a vice-president at Alex Lee, a large grocer and food distributor in the southeastern U.S. The executive wanted to know what research we had on preparing for a potential pandemic if the H5N1 avian flu virus were to become human-borne.

We did the research and arrived at some startling conclusions. One points to a nightmare scenario for the food-supply chain and includes contamination of product, transmission of disease between workers and customers, and accelerated infection rates. Sales would drop, suppliers suffer, perishables perish, and profits evaporate. That scenario underscores the dark side of the connectedness accompanying the rise of globalization.

**BACKUP NEEDED.** Consider what transpired during the brief but visible SARS breakout of 2003. The ripple effect was suddenly global because of heavy international business travel to and from Asia. The outbreak affected critical component supplies for many electronics businesses.

In 2004, a natural supply-and-demand imbalance at the Port of Long Beach caused major disruptions to the inventory levels of suppliers and retailers just as the holiday season began. Such are the ways industry can suffer when large-scale events like strikes, storms, or terrorism affects the supply chain or the flow of products from the raw materials stage to the consumer.

Globalization is the underlying factor here, with an ever-increasing flow of materials, people, and knowhow around the world as companies seek lower costs of production. Automobiles, for instance, are assembled from components supplied by thousands of companies around the world. Supplier contribution to the total value of vehicles has increased from 60% in 1990 to 65% in 2000 and is expected to reach 76% by 2015. According to UN Development Programme data, developing countries' high-tech manufactured products grew from 0% to 22% of all exports between 1990 and 2003, while high-income OECD nations' high-tech exports remained flat, at 18% of all exports. We are increasingly interdependent, and threats to one are now threats to all.

Despite the mounting evidence that supply-chain risk is a business problem, only a few businesses have systematic risk-management strategies in place. There are several areas where companies can make the necessary preparations. One is supply-risk planning, or identifying threats to supply flow and making contingency plans in case those threats are realized. In this area, 22% of the companies in our survey say they have prepared. Companies need to look for backup supply sources and have ways of accessing those supplies in the event of an emergency.

**CROSS-TRAINING.** Companies can also put systems and processes in place to support customers and employees who may need to work from the safety of their own homes. In our survey, 38% of companies said they are ready for this. And even if disaster never hits, such planning can accommodate mundane localized needs like cutting commuting times and accommodating remote customers. Companies capable of self-service (29%, according to this survey) allowing customers and employees to help themselves, will also find themselves ahead, with or without a disaster.

Workers should also be trained in multiple jobs, as is the case in the military. This gives companies many options should an employee be disabled. Such cross-training (which 22% of companies are undertaking) not only helps in case of crisis, but it also helps stem the ongoing brain-drain problem so many companies are having to deal with as skilled workers retire or leave for other jobs.

Finally, it's a good idea to evaluate scenarios for corporation-wide financial risk—for the present, the near term, and the future. The 43% of the companies preparing for this are looking at such things as hedging strategies for fuel, metals, or semiconductor capacity or scenario modeling to limit dependence on any high-risk part, or node, of the supply network.

**NEW TOOLS.** Directly after a disaster, awareness is high and focus is intense. But dealing with the daily grind often means pushing complex analysis of what could go wrong off the agenda. The one-third of companies that are employing a variety of technology tools are ahead of the curve. Just such an approach was used by computer-maker Dell ([DELL](#))

to reroute supply-chain activities in the days leading up to Hurricane Katrina.

Others are looking to a new class of technology that helps sales, marketing, and operations coordinate efforts. This includes sales and operations planning software, made by such vendors as Steelwedge, i2 Technologies, and TXT e-Solutions, that lets the user conduct what-if analysis and scenario planning to best align customer demands with supply realities. The ability to define supply-chain risk management practices and policies was in fact the deciding factor that won one firm a major supply contract for Boeing's 787 program.

And analytics (business intelligence software) is an increasingly vital part to nearly every aspect of a company's business, most notably in risk management. For instance, where the ability to track supply is vital, such as in container transport across oceans, business-intelligence tools are being used to identify suppliers, routes, carriers, and ports that threaten business continuity.

**RISK REDUCTION.** Whatever measures are taken in advance, being able to respond quickly matters most to companies looking to deal with major supply-chain disruptions. In a case study explored by Dr. Yossi Sheffi in his book *The Resilient Enterprise: Overcoming Vulnerability for Competitive Advantage*, cell phone giant Nokia (**NOK**) took a rapid and intensive response to a fire in one of its suppliers' chip plants to seize a market share advantage over rival Ericsson (**ERICY**). Nokia was able to secure needed backup supplies very quickly. Meanwhile, Ericsson's slow reaction to the lost capacity at its supplier's factory cost it critical component supply. This meant a big shortfall in sales volumes and market share losses for Ericsson.

Procter & Gamble (**PG**) similarly pulled its complete supply-chain resource pool together in the run-up to and aftermath of Hurricane Katrina to solve problems ranging from the lack of clean water and housing for employees to airlifting engineers and equipment into its New Orleans Folgers plant. The plant accounts for more than 50% of P&G's U.S. coffee production, so getting the plant running again was vital. The plant was the first major industrial facility in the region to come back on line and had restored 85% of capacity within three weeks of the storm. Folgers has since rebounded to a higher U.S. market share than before Katrina hit.

Whether a risk is cataclysmic or mundane, businesses today are far more likely to be hurt compared with 30 or 40 years ago, when business was much more local and market reaction less instantaneous. Supply-chain risk is now a matter of utmost importance to business. Preparedness, visibility, and rapid response are all enhanced by the same technology revolution that raised the stakes in the first place. Business needs to master these tools and disciplines to analyze scenarios, plan responses, and hedge against fate.

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