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SUPPLYCHAIN MANAGEMENT REVIEW®

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Cover by Spark Studio

FEATURES

12 Risk Management: Welcome to the New Normal

The potential risk of supply chain disruption has never been greater. In fact, it's become the new normal, say authors and educators Robert Trent and Greg Schlegel. The problem for many companies is that they are ill prepared to handle a disruption should one occur. This article argues for a new set of risk management techniques in a world where heightened supply chain risk has become a fact of business life.

22 Getting the Most Out of SRM

Supplier relationship management (SRM) can deliver powerful business benefits. For companies to realize those benefits, though, SRM needs to be comprehensively understood and expertly implemented. The core principles and change management practices offered here can guide that process and deliver on the promise.

30 A Framework for Safety Excellence: Lessons from UPS

UPS has developed a solid safety framework that is founded on personal value—a commitment by every employee to adhere to clearly defined safe work practices. This joint academic-industry report describes that safety framework and lays out key lessons learned from the UPS experience for supply chain professionals everywhere.

38 Outsourcing Governance: Why Insight Beats Oversight

Though supply chain outsourcing has been generally beneficial, there's one recurring problem: a lack of a proper governance structure that provides consistent management, policies, and decision-making rights. Good governance is good business. When done right, the governance process can help both parties achieve their ultimate goal—a more successful enterprise.

46 How to Prep for a Winning Negotiation

Too often, supply chain and procurement leaders are not well-prepared for complex negotiations with key suppliers. For one thing, they don't do their homework as comprehensively or conscientiously as the folks on the other side of the table. Negotiation expert Mark Trowbridge offers seven techniques that can get you ready.

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Boy Scouts Had it Right

As far as I know, supply chain management does not have an official slogan. So I'm proposing that we borrow one of the best ever. It's from the Boy Scouts and we all know it: "Be prepared." You might say it's the perfect motto in a world where the next potential supply chain disruption is just around the corner.

In the supply chain context, just what does being prepared really mean? Well, much of it has to do with plain old good business practices. You need to regularly do your homework on your customers, your competitors (both the current ones and future threats), and your markets. Another large—and growing—part of being prepared revolves around managing and mitigating risks that can impact your supply chain operations. This issue of *Supply Chain Management Review* examines these multiple aspects of preparedness.

In arguing that the potential for supply chain disruption is the new normal, authors Robert Trent and Greg Schlegel say that too many companies are inadequately prepared to deal with a major supply chain disruption—and that needs to change. Toward that end, they offer a series of practical techniques and tools to more effectively manage risk. As the article notes, risk management is not necessarily a glamorous activity. But, like doing homework, it's an essential element to success.

The Spotlight on Supply Management column, by the way, examines risk management through an interesting lens—sourcing from remote locations. The A.T. Kearney analysts note that more companies are moving operations closer to their suppliers of natural resources and to new customers in emerging markets. But in doing so, the authors caution, they need to conduct a meticulous due diligence—across infrastructure adequacy, total (and sometimes hidden) project costs, governmental stability, and more.

Frank Quinn, Editor
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Preparation extends beyond supply chain risk, of course. Any initiative worth pursuing demands the proper level of attention up front. Nowhere is that any clearer than in the negotiation process. But as procurement expert Mark Trowbridge underscores in his article, buyers frequently do not come to the table as well prepared as their supplier counterparts. His seven techniques of successful preparation for a tough negotiation squarely address the issue.

So, with apologies to the Boy Scouts, this issue is an advocate for the new supply chain motto: "Be prepared."

Our **Global Links** column is back after a brief hiatus. Going forward, this column of international insight and information will be written by Executive Editor Patrick Burnson. Patrick is a veteran observer of the global supply chain scene and has written extensively on the topic for *Logistics Management* and other publications. In this issue, he examines the promise and potential of the expanded Panama Canal. You might be surprised at some of the conclusions.

Francis J. Quinn

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InSIGHTS

BY LARRY LAPIDE

Are You Ready for Expensive Oil?

Supply chain professionals must recognize that the Era of Cheap Oil is long gone. What's needed today is a supply chain strategy centered on less oil consumption and greater energy efficiency.

Dr. Lapide is a lecturer at the University of Massachusetts' Boston Campus and is an MIT Research Affiliate. He welcomes comments on his columns at llapide@mit.edu.

My inaugural *SCMR* column in the January/February 2007 issue, titled "Is Your Supply Chain Addicted to Oil?," was written as a warning shot to supply chain managers. The message: oil was going to continue to get more expensive over the long haul and prices would be more volatile as well. My next column, "The Link Between Oil and Supply Chain Design," discussed the fact that oil permeates all supply chains. This meant that the cost- and asset-effective supply chains developed during the heyday of supply chain management—which also coincided with the "Era of Cheap Oil"—would have to be revised. Companies would be forced to squeeze oil out of supply chains and make them more energy efficient and more resilient to big swings in oil prices.

Since then, I have been writing about oil almost annually because I believe that the trend toward higher oil prices is the single most important macro factor that supply managers will have to contend with over the next couple of decades. Specifically, managers will be required to continually evolve their supply chains to align them to an increasingly expensive oil regime. However, it seems that the volatility in oil prices we've seen over the past seven years has masked this critical trend for most shippers. They simply have not heard the warning shot.

In the January/February 2011 issue of *SCMR* I wrote about slow steaming, a practice whereby ocean carriers slow down their vessels to conserve energy. While this adds days to a voyage and increases sourcing lead times, it is an important program to slow down supply chains and make them energy-efficient. I heralded the slow steaming move as a signal that the carriers were on board to better align global supply chains to increasingly expensive oil. I also noted that while some (but not all) shippers were on board, every shipper would eventually realize that they need to work closely with the carriers to make supply chains more energy efficient through programs such as slow steaming.

So I was surprised when I saw the title of an online *Logistics Management* article (logisticsmgmt.com, June 6, 2011), "Slow-Steaming is Disrupting Supply Chains." The article cited a study by BDP International and St. Joseph's University that found that "92 percent of transpacific shippers had to make supply chain adjustments." I have a few issues with the article and study. Calling slow steaming "disruptive" makes it seem that conserving energy is wrong; it is not. Also, it appears that most shippers have not yet realized that they need to prepare supply chains for expensive oil—making them more energy-efficient and less susceptible to oil price increase while reducing carbon-emissions to boot. Moreover, because slow steaming is also a "green" program, the indirect implication from the report and coverage is that being green is wrong, too.

Oil Prices Climbing, Albeit Erratically

Exhibit 1 is an updated version of a chart I've shown before that depicts the nominal and "real" (i.e., deflated) price of oil since 1974. As the chart shows, the real price of oil has been erratic. Yet for the past seven years it's been climbing, following the end of the

17-year Era of Cheap Oil. As I write this column, the price has been hovering around $100/barrel. By contrast, during Cheap Oil prices ranged from $20 to $30 per barrel. So over the past 7-year period, we've experienced (on average) a 300 percent increase, after adjusting for inflation.

I do not adhere to the premise that the world is reaching or has reached a peak in oil output. But whether it has peaked or not isn't the major concern for supply chain managers. It is more about price than potential oil scarcity. Daniel Yergin, author of a Pulitzer-Prize winning book about the history of oil and the industry, was quoted in a recent *Boston Globe* article as saying that "in 2030, most forecasts still show oil, gas, and coal being primary energy resources." So until 2030, oil will still be the energy source of choice for supply chains.

Yergin also states that "there is kind of a floor under oil prices, around $60-70" deriving from cost structures. This supports the view that there will be enough oil until 2030, but that the price will continue to rise from trends in both demand and supply. On the demand-side, less-developed countries are using more oil to fuel their economies, which will grow faster than developed countries. (Case in point: in 2010, China's energy consumption and net oil import levels reached that of the United States.) On the supply-side, easy oil sources are drying up. Going forward, oil increasingly will be extracted from costlier sources, such as from deep-water drilling, shale oil, and tar sands. Thus, as demand goes up and extraction costs increase, prices will naturally rise.

Oil Efficiency Programs

If you have not already done so, you need to start aligning your supply chains to rising oil prices. To cite just one example, start taking advantage of oil-saving programs like slow steaming, rather than viewing them as disruptive. Carefully evaluate these four main opportunity areas for oil savings:

1. Substitute Plastics-Based Materials. For decades now, manufacturers increasingly have turned to plastics for use in their products. Under expensive oil, other materials will need to replace plastics.

2. Reduce Plastics-Based Packaging. The use of plastic, shrink-wrap, and plastic-based composites to package and distribute goods also has been rising. Expensive oil will favor replacing these types of packaging with other materials such as glass, metal, and paper.

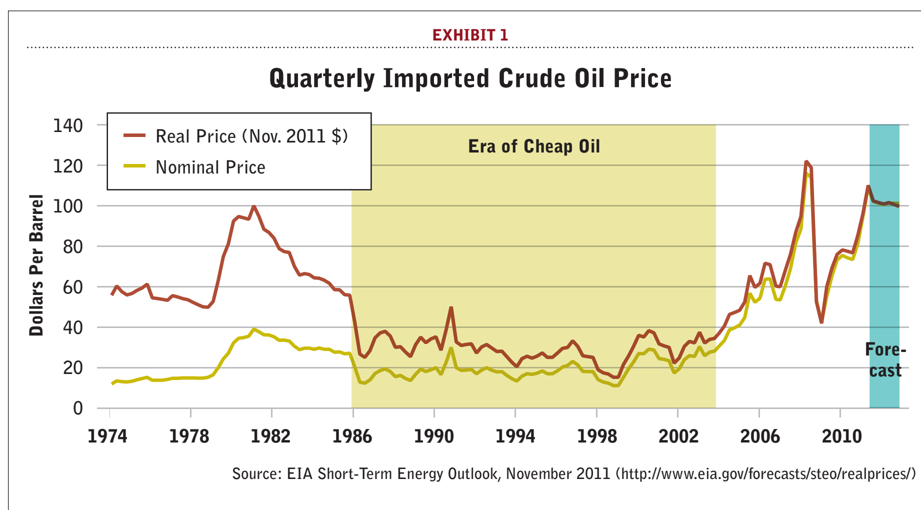
3. Source Closer to Product Consumption. During Cheap Oil many manufacturers justified off-shoring and sourcing from distant countries to meet domestic demand. Expensive oil means some supply lines will need to be shortened. Domestic as well as near-sourcing will become more favorable sourcing alternatives.

4. Revise Just-in-Time (JIT) Programs. Many JIT programs were implemented during Cheap Oil when transportation costs were relatively inexpensive as compared to product values. The use of faster transport modes led to faster supply chains and significantly shortened cycle times. Under expensive oil, slower supply chains, emphasizing more energy-efficient modes, will be favored. Ocean will be more favorable than airfreight. Similarly, rail/barge will be more favorable than truck. And truck will be more favorable than parcel.

Companies will need a long time to evaluate these areas of opportunities and develop programs to capitalize on them. Recall that it took almost 20 years to evolve supply chains during the Cheap Oil Era. So the sooner shippers start revising their supply chains in light of the new oil realities, the better. The benefits initially realized from Cheap Oil will evaporate as oil prices rise. Most damaging, clinging to a Cheap Oil supply chain strategy over time will severely handicap your company's competitiveness.

EXHIBIT 1

Quarterly Imported Crude Oil Price



Source: EIA Short-Term Energy Outlook, November 2011 (http://www.eia.gov/forecasts/steo/realprices/)

BY PATRICK BURNSON

Is The Panama Canal Expansion Really a Game Changer?

The conventional wisdom on the Panama Canal expansion may or may not turn out to be so wise. For shippers, the best course of action is to develop a diversified global strategy.

Patrick Burnson is the executive editor at *Supply Chain Management Review* He can be reached at pburnson@ehpub.com

It's being hailed as the greatest engineering achievement of the 21st century, and destined to transform every aspect of the global supply chain. But will the Panama Canal truly be the "game changer" that reshapes the pattern of ocean cargo shipping when it opens its new gates in 2014? For a variety of reasons, there is plenty of room for doubt.

Currently, the West Coast is home to three of the top 10 container ports in the United States. Los Angeles, Long Beach, and Seattle comprise the leading cargo destinations, with Oakland and Tacoma not far behind. And while international trade analysts concur that the Panama Canal expansion due for completion in 2014 will make a significant impact on ocean carrier deployment strategies, not all are convinced that U.S. West Coast seaports will lose market share to gateways on the Eastern seaboard and Gulf. Indeed, several questions remain to be answered before that dire prediction can be made with any measure of accuracy.

The first great unknown is pricing. The Panama Canal Authority has up until now used its toll structure to maximize revenue rather than build cargo volume. This is perfectly understandable, given the fact that it must soon retire the project's debt of $5.25 billion. The worst-case scenario for many ocean carrier executives is the prospect of a sudden spike in gate fees after all their "mega" vessels are committed to a Panama Canal transit. This could cause a severe disruption in the supply chain expense models for U.S. multinationals sourcing finished goods from Asia on what many regard as slender margins to begin with.

A positive view would suggest that retail giants like Walmart and other mega-shippers will leverage their influence with guaranteed volumes, thereby giving carriers a hedge against a sudden increase in toll hikes. The Panama Canal Authority, meanwhile, is assuring the trade community at large that moving freight through its entrepot with the new generation of huge containerships will be cheaper in the long term.

U.S. seaports in the East, Southeast, and Gulf certainly would like to think so. They are busy planning, seeking funds, and in some cases actually dredging deeper channels and harbors, and building berths to accommodate the expected surge in traffic. But skeptics argue that this scenario may not exactly work out. They contend that ports have already identified which carriers are willing to be exposed to the risk of initiating a new service through the canal on eastbound calls, and that attracting any others is a matter of conjecture.

Lost in much of the discussion, too, has been mention of cargo traffic moving in the westbound trade lanes (Brazil's Port of Santos to Long Beach, for example).

The West Coast Factor

Meanwhile, U.S. West Coast ports continue to pursue the same improvements in infrastructure. The Port of Oakland, for example, reached a major funding milestone of nearly $350 million for harbor deepening and maintenance recently, thereby enhancing its position as a leading U.S. ocean cargo export gateway.

Deeper vessel channels mean that the port can remain globally competitive, support job retention and growth, and drive positive

economic impact for the region and state. The U.S. Army Corps of Engineers has already begun its annual maintenance dredging that keeps Oakland's harbor navigable and at a depth of minus 50 feet.

More than 2,000 container ships call on Oakland each year, and many leave fully-loaded with California exports. Indeed, Oakland is the only major container port on the U.S. West Coast that exports more than it imports, with the volume of its export business at 55 percent and imports at 45 percent. If the President makes good on his 2010 promise to double U.S. exports by 2015, West Coast ports will also be poised to benefit by a balance in trade.

Major railroads serving West Coast ports are capable of exerting more pricing flexibility, thereby helping Pacific Rim cargo load centers compete against the Canal. Unlike the Canal Authority—which is charged with maximizing revenue rather than volume—railroads and ports can work together to attract business by providing faster intermodal movement into America's industrial heartland and population centers. This is especially important to importers of high-end and/or time-sensitive commodities like pharmaceuticals and fashion.

It should be noted, however, that inbound cargo levels at all California seaports as well as those in Washington and Oregon are in prolonged decline, losing share to the Pacific Northwest gateways of Vancouver and Prince Rupert in British Columbia. Canada's efficient transcontinental rail system feeds cargo down into America's hinterland, too, which brings up another issue worth considering: The ongoing trend of near-sourcing or near-shoring.

Manufacturing, Labor, and Security

Bringing manufacturing closer to home may also diminish the reliance on canal throughput. Near-sourcing and the North American Free Trade Agreement (NAFTA) represent a perfect supply chain match. Thanks to NAFTA and the lowering of taxes and duties on many commodities, trade has dramatically increased between the United States and Canada in particular with billions of dollars in goods and services crossing the border on a daily basis. With less cargo coming from Asia, the current carrier strategy has been to cut knot-speed on the transpacific to save fuel expenses and operating costs. Shippers have reconfigured their supply chains to accommodate this "slow steaming," and are managing to keep their inventories lean while consumer demand remains static.

Then, there's the labor issue. Disruptions at U.S. West Coast ports due to wildcat strikes and other dockworker actions adds to the speculation that cargo will be diverted through the Panama Canal to more "labor friendly" gateways in the Gulf and East. This is a faulty proof at best, because solidarity has been proclaimed and promoted not only by organized labor in the U.S., but also in Panama. Witness the latest communiqué from the Panama Canal Pilots Union, which voted to affiliate with the International Longshore and Warehouse Union (ILWU). While strikes are prohibited by the Panama Canal Authority, there is ample precedent to suggest that unions might jointly conduct a slow-down in productivity and container lifts that can be as debilitating as a full shut down in current container throughput cycles. A vote on the resolutions is set to occur when the ILWU stages its international convention in San Diego next July. No doubt, shippers will be tracking the issue leading up to that event.

In the end, free market forces will determine which canal prevails, and which seaports gain share.

Greater government funding of America's inland waterways could also mitigate the impacts of the canal expansion. Inland ports have been clamoring for years for incentives to keep cargo moving in a secure and sustainable fashion on our rivers, lakes and sounds. This type of domestic distribution would divert freight to several ocean cargo gateways without ever transiting either the Suez or Panama. The unlikely, but plausible, opening of the Northwest Passage in the Arctic Circle is another concern for Panama. Major ocean carriers are already exploring the possibility of routing traffic through this trade lane if, and when, it becomes relatively ice free.

Finally, there is the security card. Panama is in proximity to hotbeds of political unrest, thanks in large part to the continuing dominance of the narco-cartels and Venezuela's sphere-of-influence designs on the Caribbean Basin. Proposed rail links in Costa Rica and Columbia (to be largely funded by the Chinese) could compete effectively, too, with the Canal Authority's aspirations to become a logistical hub along the lines of Singapore and Dubai.

Granted, the Suez Canal is hardly regarded as invulnerable to tensions of its own, but the criminal and geopolitical threats there have been contained in the past. The Suez also enjoys the benefit of being debt-free, and not under pressure to keep its tolls high.

In the end, free market forces will determine which canal prevails, and which seaports gain share. But the smart money will be on a hybrid solution for ocean cargo shippers, who will benefit from a segmented and diversified global supply chain.

PROFILES in LEADERSHIP

The Practical Practitioner: May Leng Yau-Patterson

By John Kerr

John Kerr is a special projects editor for *Supply Chain Management Review*

The "aha" moment for May Leng Yau-Patterson came about 12 years ago when she and her team were trying to implement a kanban system on the production line at her company. "I learned that as a leader, you don't have to have all the solutions," she says.

The flip side of that revelation: Others on the team must have the technical skills to implement the leader's vision. "A leader is complemented by people who have technical ability and high motivation; you can't do it all by yourself," says Yau-Patterson, now the director of logistics for Chrysler Group LLC.

The kanban initiative, coming around the winter holidays, had been particularly stressful for Yau-Patterson and her 15-person team. It affected forklift truck operations across 28 plants, and had to be carried out without any interruptions to ongoing production. "We had a very short time frame to implement these changes because funding was going to be restricted in the new year," she recalls.

Supply chain leaders don't have to be technical experts, says May Leng Yau-Patterson. But they need a level of competency that enables them to lead a team in the right direction.

But when she gathered all the relevant managers in the room and presented her vision for what the effort could achieve—a target of $50 million in savings and an effort that, if successful, would be seen to be best practice in the industry—she was thrilled at the responses. "The team did some great brainstorming. It was amazing to see how creative people were. We stretched everybody—and everybody was open to the challenge. Many even volunteered to do more work," she says. Some of that work involved extra travel to other plants at a difficult time of year to be away from home.

The upshot of the teamwork: The kanban system achieved its objectives—and the team received the chairman's award and plenty of kudos for their efforts.

These days, in her role at Chrysler, Yau-Patterson heads the development of supply chain strategies, along with standards and methodologies to ensure proper execution of a world-class manufacturing logistics system. "In a global market, you're going to compete on your supply chain—how well and how fast you can deliver to your end customer," she declares. The executive leads the development of lean supply chain solutions, which includes the design and implementation of innovative parts handling and logistics flow methods to reduce internal material handling costs and external supply chain costs. This encompasses Chrysler's entire supply chain, from receiving inbound parts to delivery of finished vehicles and service parts to dealers.

In parallel, she leads the car maker's Logistics Center of Competence, where her responsibility spans implementing best practices and providing coaching direction for operational implementation across Chrysler's 26 assembly, engine, transmission, component, stamping and vehicle assembly plants and MOPAR service parts distribution center locations in the U.S., Canada, and Mexico.

"The good thing about the job is that you get instantaneous feedback from the plants when you

visit them," she says. "Sometimes you have a staff job where you never go to the plants." When Yau-Patterson spoke with *Supply Chain Management Review*, she was in Mexico City, coaching and teaching senior plant managers in the methods needed for the plant to achieve and maintain world-class standards.

Solid Practical Background

In total, Yau-Patterson has more than 25 years of experience in mass production—much of it in the automotive industry. She holds a master's degree in operations research and a bachelor's degree in systems analysis, both from the University of Miami. The Chrysler leader has a long list of successes to her name. She spearheaded the implementation of lean inventory and materials management tools to reduce Chrysler's working capital per vehicle by 25 percent. She contributed to the reduction of more than 25 percent in sequencing logistics costs per vehicle by working with key suppliers to optimize their operations using lean techniques. She also developed and implemented a container management system that reduced packaging costs per vehicle by more than 30 percent.

For much of her career, Yau-Patterson has been involved with logistics. One of her first jobs after college was as the lead logistics analyst at Ryder Integrated Logistics. She was one of the only women then in the trucking industry. "The bathroom was for the men," she jokes. Her work at Ryder with Toyota taught her the value of the philosophy and practice of continuous improvement. But the Ryder experiences also taught her that gender doesn't matter when there's a job to do. "You don't wear your gender on your sleeve," she says.

By the early 1990s, she was managing logistics engineering at TNT Logistics; a few years later, she was Exel's director of solutions development and the key account director for the logistics provider's automotive business. By early 1997, Yau-Patterson had made her move into the automotive mainstream, becoming General Motors' group manager of competitive operations engineering. Then, eight years ago, she moved to Chrysler as its director of manufacturing action process, where she led central industrial engineering and the company's lean manufacturing activities.

By 2006, she had taken on the direction of Chrysler's advanced supply chain operations, responsible for activities such as the design and implementation of innovative parts handling, packaging techniques, and logistics methods to reduce the costs associated with the launch of new vehicles, stamping, and power-train programs. And at the end of 2008, she took over leadership of Chrysler's manufacturing planning and control and directorship of its advance supply and production control operations.

Her rising industry influence has not gone unnoticed. In 2010, *Automotive News* recognized her among its "100 Leading Women in the North American Auto Industry." Her influence is also apparent in Chrysler's new cars. Her example: Compared to two years ago, the Dodge Avenger is completely different, she says. Everything that didn't add value—even the movement of a part or subassembly by a few feet on the assembly line—has been or is being stripped out, courtesy of the focus on lean, helping Chrysler hold down its costs and on-the-lot pricing. At the same time, vehicle quality is being improved, particularly in interior fit and finish.

Taking Time to Be a Leader

Today, Yau-Patterson can reflect on how her leadership style has changed in more ways than letting skilled people get on with the job. She speaks to the need to develop and mentor promising next-generation leaders. "Sometimes we don't make time to do that," she says. She also describes the importance of being able to create a vision—and then being able to build the plan to execute the vision and follow through with its actual implementation, measuring progress as you go. The characteristic where Yau-Patterson has evidenced the most change: Getting away from the day-to-day activities of "being a manager" to lead people—communicating what you're trying to do and then letting them do it, knowing that they will make mistakes and that it will often take longer than if you did it yourself. But there's one fundamental characteristic that Yau-Patterson says great leaders must never be without: Having the knowledge and skills to understand the technical aspects of the job, without knowing it all but with enough to be able to provide guidance.

So what about the next generation of supply chain leaders at Chrysler? Yau-Patterson is confident that many of those under her tutelage—geared to Chrysler's adherence to world-class standards—will have bright futures and will be enormously valuable to the car maker. Beyond that, she is less certain, based on the caliber of supply chain graduates she sees. "There's a lot of focus on procurement in the schools," she says. "That's good, but you need to know how the parts go into the vehicle." Her recommendation for the colleges: more co-op programs.

"In a global market, you're going to compete on your supply chain—how well and how fast you can deliver to your end customer."

Bridging the Gap between HR and SCM

By Jim Rice and Ken Cottrill

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There is much debate in supply chain management (SCM) circles about how the profession can meet the demand for talent. The SCM community is putting a lot of effort into finding and developing career-minded individuals, but it also has to rely on human resources (HR) departments to create effective employment programs. Are these HR practitioners up the task?

Because they support every corporate discipline, in many organizations HR managers only have a rudimentary knowledge of the supply chain domain. This may be acceptable where the function has been a marginal activity. But as SCM takes on core responsibilities—as is the case in a growing number of enterprises—personnel in HR require a deeper understanding of the roles and responsibilities associated with managing supply chains.

What expertise do these managers need to help SCM attract top notch professionals? How can they become more actively involved in finding solutions to broader supply chain talent management challenges?

Dedicated Decisions

The nature of the relationship between HR and operations departments depends, to a large extent, on the relative importance of SCM within the organization. Enterprises that cast the function in a strategic role are more likely to devote the necessary HR resources to SCM. Some companies, in fact, have HR professionals or teams whose primary responsibility is to recruit and develop supply chain talent.

"If you are going to play in global markets you have to understand supply chain; that's when you need to focus on it and to dedicate resources to it," says the head of talent management at a leading manufacturer of machinery.

Global growth is a high priority for her company, which has embarked on a supply chain transformation project to support its overseas expansion. As part of the strategy, the enterprise created a global talent management position. "My role is only going to expand. It will become more global, and we will need a much higher level of expertise in specific areas of supply chain," says the talent management executive.

The vice president of HR in a well known fashion apparel company has a direct report to a senior supply chain executive. As she points out, the company needs SCM-specific HR support because "there are so many moving parts and so many things changing all the time. If you have multiple areas to support, it's very tough, difficult to keep your focus." These dedicated managers—HR personnel whose main job is to work with supply chain leaders—are uniquely well placed to assess what skills their profession needs to maintain an effective talent pipeline for SCM.

Muddled View

The HR profession in general needs to address its lack of clear understanding of what SCM actually does and what contribution it makes to the enterprise. Given the supply chain's rapid evolution over recent years, it is understandable that this knowledge gap had widened. As more corporate disciplines have moved under the SCM umbrella, it is difficult enough for insiders to keep track of which roles and responsibilities fall within its remit.

The long—and ever growing—list of SCM job titles covers numerous specializations such as business continuity, commodity management, customer service, distribution, logistics, planning, procurement, risk management, sourcing, and transportation. The Institute for Supply Management lists more than 30 job titles just within the supply management area.

Decomposing these titles into required skills sets leads to even more confusion. An individual

engaged in manufacturing might need materials planning capabilities whereas transportation managers are expected to have a different kind of planning expertise, for example. Further, by definition supply chain is a bridging function that interconnects with virtually every other discipline. Throw in changing skills demands and new responsibilities such as sustainability, and it is not surprising that many HR managers are perplexed by SCM's career profile.

Such uncertainty can make it difficult to analyze resumes and ask searching questions that enable recruiters to properly assess a candidate's suitability for a position. Also, a lack of clarity is a major handicap when trying to keep up with what competencies SCM personnel need. This is particularly the case when the organization goes through substantial change.

Take, for example, the multi-billion machinery manufacturing company that is realigning to make the organization more supply chain centric. HR staff members are being reallocated to supply chain assignments as part of the strategic shift. One manager was recently brought out of the plant and "is now helping to support supply chain manufacturing and purchasing from a talent management perspective," explains the head of talent management. "At least once a week he is still asking me: 'How is purchasing a part of supply chain now? I still don't understand it; it's quite different, different skills,'" the talent executive says.

How SCM fits into organizations is a gray area for many HR managers. A Supply Chain Professional Development Manager at a heavy equipment manufacturing company believes that the HR folks may understand supply chain as a "buzzword" that is "associated with a traditional function such as logistics, purchasing, or manufacturing."

Introduce a global dimension to the professional profile and the definition of supply chain becomes even blurrier. HR managers have to consider candidates with expertise in regional factors such as variations in tax codes and the quality of infrastructures, in addition to the requisite operational capabilities.

Further, the type of expertise required changes with the nature of the overseas venture. The fashion apparel company is acquiring a company in South Korea, for example. The supply chain practitioners it needs during the initial phase of the acquisition are not the same as those it will employ as the venture matures. When the transitional phase is over and the acquired company is operating as part of the parent group, its SCM practitioners will be dealing with a different set of challenges. HR professionals need to be aware of these nuances, and have the ability to reallocate and/or hire operational staff accordingly.

Different Schools of Thought

The recruitment process can be fraught with uncertainty for HR managers who do not have a firm understanding of how supply chain functions. One of the most important sources of talent is university campuses. Over the last decade or so the number of schools offering supply chain programs has increased markedly, Establishing relationships with these institutions is a key element of company hiring strategies.

However, HR personnel who are not familiar with SCM and associated employment demands may not be aware that these institutions tend to offer programs oriented towards certain areas of expertise. There are programs that focus on procurement, international logistics, and broader business issues, for instance. Academia does not make the task any easier by giving these programs an assortment of titles including logistics, supply chain, and transportation, and housing them in a variety of departments within schools.

HR managers who fail to appreciate these distinctions are less likely to identify and hire the best candidates. And if their knowledge of SCM is vague to begin with, they may not be able to ask the right questions in order to ascertain exactly what types of recruits they should be looking for.

HR managers can learn about SCM by visiting a distribution center or attending operations meetings.

There is culpability on the other side of the desk as well. Supply chain leaders are not always clear on precisely what skills and/or individuals for specific positions within their departments. And they may or may not give deep thought to what career paths should be in place for their staff members. The lack of clarity can be particularly troublesome for HR managers when it comes to international appointments. How many senior supply chain executives have given HR personnel a thorough briefing on the differences between running a supply chain in India vs. China, for example?

Bridging the Gaps

If HR professionals are to play a central role in helping to develop and manage a supply chain talent pipeline, they need a firm grounding in how the function operates and meshes with other disciplines.

HR managers can learn about SCM by, for example, visiting a distribution center or attending operations meetings. Employers could offer formal instruction on what managing a supply chain entails. As an HR executive notes, managers in HR do not need a supply chain degree, but sufficient training "just to understand what supply chain is, what it does, and the contribution it makes."

Authors note: *The MIT Center for Transportation & Logistics plans to publish a white paper on HR's role in supply chain talent management as part of a Forum planned for later this month. Contact the authors for more information.*

RISK MANAGEMENT: WELCOME TO THE

As supply chains continue to become more global and complex, the risk of disruption intensifies. Yet while most companies recognize the increased risk potential, many are ill prepared to handle a disruption should one occur. This article argues for a new set of risk management techniques in a world where heightened supply chain risk has become the new normal.

By Gregory L. Schlegel and Robert J. Trent

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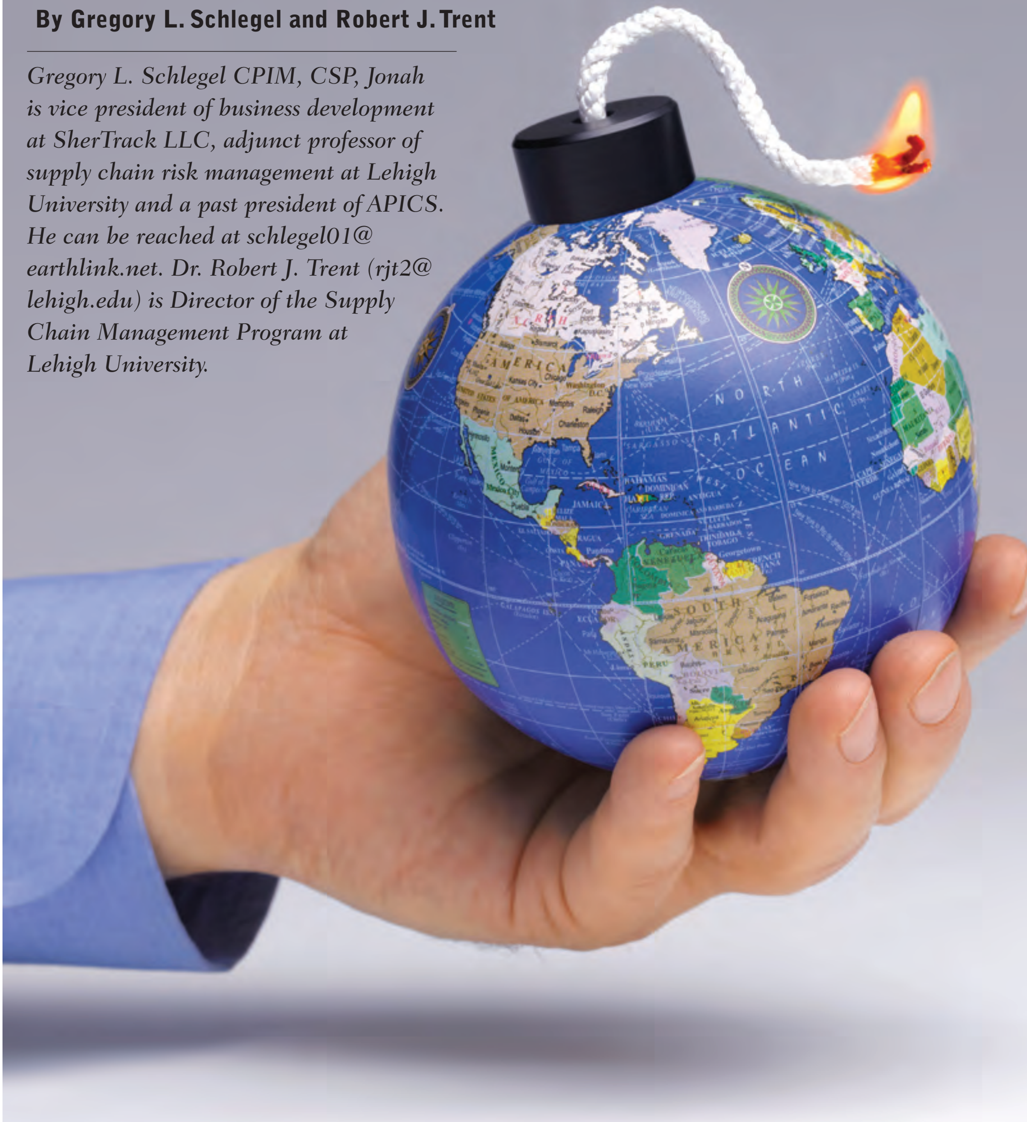


NEW NORMAL

Hurricanes, earthquakes, tsunamis, tornadoes, and billowing ash from obscure volcanoes all have some things in common. Over the last several years each has been featured prominently in the news. And each has had the inevitable effect of disrupting global supply chains. Yet these kinds of disruptions were not on the minds of Astella Pharma executives on June 17, 2009. On that night thieves stole a trailer containing $10 million of the company's pharmaceutical products from a truck stop in Tennessee. What followed was a harsh lesson in the realities of supply chain risk.

Once the final tallies were made, the actual cost of the stolen product was just a fraction of the losses eventually suffered by Astella. Acting on advice from the U.S. Food & Drug Administration, the company quickly contacted every party in its supply chain, ranging from wholesalers to hospitals, warning them of the stolen drugs. Then, as a preventive measure, Astella withdrew from the marketplace all drugs with the same lot numbers as those that were stolen. Some of the stolen pharmaceuticals required strict climate control (something the thieves were likely not too concerned about), thereby necessitating the return of all product with those lot numbers. The $10 million theft eventually cost the company $47 million, a figure equivalent to 10 percent of its North American sales for that quarter. Welcome to the world of supply chain risk—a world where sometimes the only thing we should expect is the unexpected.

This article argues that the risk management techniques currently in place, most of which are put forth with the best of intentions, may not be sufficient to allow supply chain organizations to attain risk management excellence in a dangerous world. An innovative set of approaches is needed in a world where heightened risk represents the new normal.

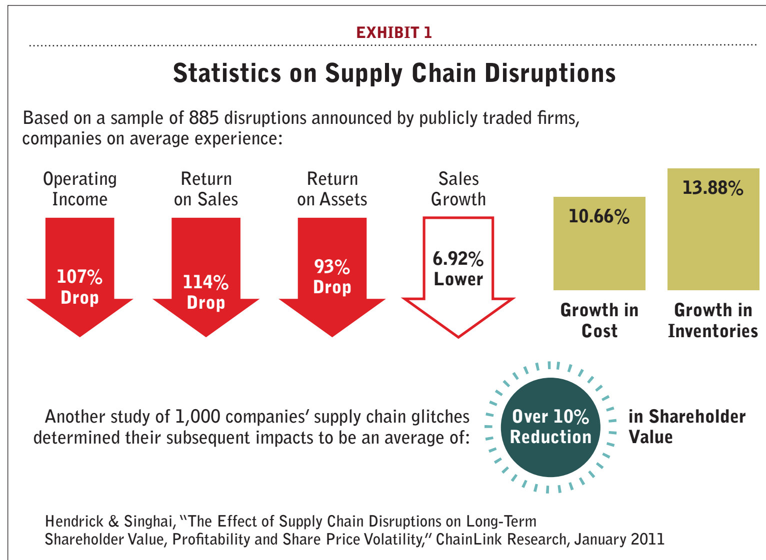
Understanding Risk and Risk Management

Before presenting these innovative ways to address supply chain risk, we can make some relevant observations based on extensive experience and research with leading firms. First, organizations over the last decade have become increasingly aware of the need for risk management. Almost 75 percent of risk managers say that their company's supply chain risk levels are higher than in 2005. Over 70 percent say that the financial impact of supply chain disruptions has also increased.[1] Second, too many firms are ill prepared to handle the supply chain risks that may come their way—even though most managers recognize that supply chain risk is a growing concern. A recent study revealed that for firms with less than $500 million in annual revenue, only 25 percent take a proactive approach to risk management.[2] Third, while many risk categorizations and topologies exist, we see a convergence of interest around the key categories of supply chain risk, particularly operational and financial risk. Finally, as it relates to mitigating or lessening the impact of risk events, the standard approaches typically adopted fail to reflect bold or innovative thinking. In this article, we present some new and exciting ways to move beyond the obvious as it relates to supply chain risk management.

Anyone who writes about risk has his or her own perspective on the concept. So, what is our perspective? We view risk as the probability of experiencing a less-than-desirable event that affects one or more parties within a supply chain. A standard perspective of risk is that it involves the possibility of loss or injury. This leads to risk management as a key part of the overall risk discussion. With that said, we'd like to provide a grounding definition of risk management from APICS-the Association for Operations Management. APICS defines risk management as follows: "In the context of supply chain

management, risk management involves dealing with uncertainty in supply, transformations, delivery, and customer demand. The uncertainties can be the result of such forces as yields, timing, pricing, and catastrophic events."[3]

Few would argue that when risk events occur, they have the potential to negatively disrupt business objectives. To emphasize this point, consider the impact of supply chain disruptions on businesses worldwide, as shown in Exhibit 1. One only has to think about Toyota to appreciate the numbers in this chart. The failure of the company's supply chain to recover from the Japanese earthquake and tsunami of March 2011 has cost Toyota billions of dollars in sales and profits in the U.S. alone.



It is hard to talk about risk without understanding some important concepts. Two such concepts are vulnerability and resilience. Vulnerability represents the combination of the likelihood of a disruption and its potential severity. Resilience refers to the ability to recover from disruptions of any type. Obviously, resilience will differ according to the risk occurrence and the steps taken to help with a recovery. A company with redundant suppliers located geographically apart, for example, will have higher resiliency when a disruption hits a certain part of the supply chain than a company with only a single source of supply.

An important consideration when evaluating risk is the tradeoff between risk aversion and the willingness to accept risk, or what is called a risk appetite. Entrepreneurs usually have a high risk appetite and a low risk aversion. Those who are completely risk averse, on the other hand, would never invest in the stock market or maybe even drive a car. A common misperception, both in business and at a personal level, is that risky endeavors are something to be avoided. Yet people who never take any kind of risk likely will not achieve much in the way of success.

A host of mega-trends are in play that ensure risk management will remain an important topic for the foreseeable future. Here are just a few from PRTM's recent Global Supply Chain Trends 2012 report.[4]

- 75 percent of study respondents cite demand and supply volatility with poor forecast accuracy as the biggest roadblock to success during upturn.
- 85 percent expect complexity to grow significantly through 2012.
- 75 percent expect an increase in the number of international customers.
- 66 percent expect a higher number of product variations to fulfill customer requirements.

The final report stated this fundamental finding relative to uncertainty, complexity, and risk: "Most participants are looking to international customers for future market growth, yet few are prepared for the complexity that results from serving global customers with regionally customized products." With that said, we feel comfortable stating that an era of heightened risk represents the new normal.

Not all Risks Are Created Equally

Not all supply chain risks are created equally. This simple reality demands that risks be segmented into different categories and then approaches developed that are suitable for each. For some catastrophic risks, such as an earthquake, the best some companies can do is to manage the risk after an occurrence. (But it's also true that taking this kind of risk into consideration when constructing a new facility or avoiding known fault lines might offer some semblance of protection.) For other risks, such as poor supplier performance, steps can be taken to anticipate and even prevent these risks from occurring.

While no standard risk topology exists, one of the more straightforward categorizations often used is the following:

- ***Hazard risk.*** These risks pertain to random disruptions, some of which are acts of nature such as hurricanes or floods. Accidents and fires also are included here. Other hazard risk disruptions, such as the truck theft example mentioned at the beginning of this article,

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could be malicious—for example, crime, terrorism, or product tampering.

• ***Financial risk.*** This category, which is receiving increasing attention in supply management organizations today, relates to internal and external financial challenges, particularly with regard to suppliers.

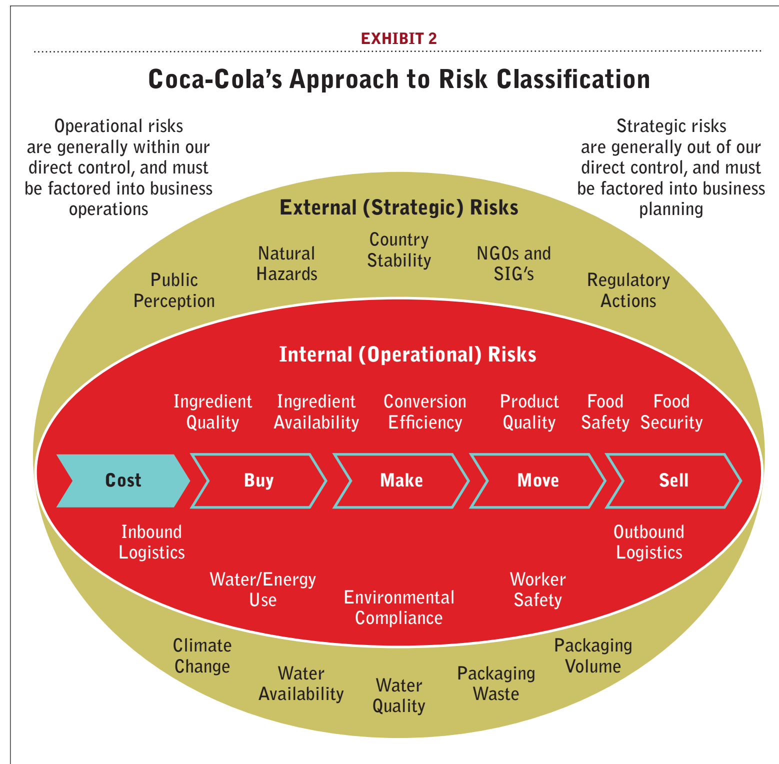
• ***Operational risk.*** These are risks associated with the tactical activities taking place in the supply chain. Examples include poor supplier quality, late deliveries because of port delays, safety issues, high costs, and excessive inventory resulting from poor forecasts.

• ***Strategic risk.*** This risk category relates to decisions made by executive management. Examples include risks associated with mergers and acquisitions, assessment of the competitive environment, social trends and compliance, global currency risk, liquidity, and capital availability.

To get a real-world perspective on two of these four risk categories—operational and strategic risk—we turn to Coca-Cola. The company and its Director of Risk Management, John Brown, are early adopters of supply chain risk management (SCRM). They are leveraging this concept to mitigate and manage worldwide risk in an effort to ensure predictable results, resiliency, and sustainability.[5] Exhibit 2 presents Coca-Cola's approach to classifying strategic vs. operational risk.

EXHIBIT 2

Coca-Cola's Approach to Risk Classification



Why is risk categorization important? Different mitigation techniques, tactics, tools, and strategies exist for each category of risk and for each cause of risk in the supply chain. Companies need to identify, analyze, evaluate, and treat risks based on their categorization, classification, probability of occurrence, and relative impact. This exercise will enable them to build an enterprise-wide risk management (ERM) framework within their organization, which we discuss below.

Innovative Approaches to Risk Management

Risk management surveys invariably ask supply chain managers what they are doing about risk. The responses provided, while often insightful, are usually predictable and not necessarily on the cutting edge of risk management. Popular approaches include ongoing evaluation of supplier financial health and expanded supplier prequalification standards. Other techniques mentioned include adopting multiple vs. single supplier sourcing, creating better supply chain traceability, and selecting suppliers closer to the end market. But where are the approaches that are daring, non-conventional, and on the cutting-edge of risk management? What are the risk tactics and techniques that not everyone else is doing but that could be real game changers? We offer the following "game-changing" ideas for your consideration.

Enterprise-wide Risk Management Framework within S&OP

Enterprise-wide risk management (ERM) includes a set of methods and processes from the insurance, finance, and risk sectors that have been around for some time. The Risk & Insurance Management Society (www.rims.org) defines ERM as follows: "The methods and processes used by organizations to manage risk and seize opportunities related to the achievement of their objectives. ERM provides a framework for risk management, which typically involves identifying particular events or circumstances relevant to the organization's objectives, assessing them in terms of likelihood and magnitude of impact, determining a response plan, and monitoring progress."[6]

This framework consists of eight elements: internal environment, object setting, event identification, risk assessment (type of risk and magnitude), risk response plan (what to do, who is responsible and how to manage the risk), control activities, information-communication and monitoring. Companies on the leading-edge of SCRM, such as Cisco, Coca-Cola, Ericsson, Nokia, and

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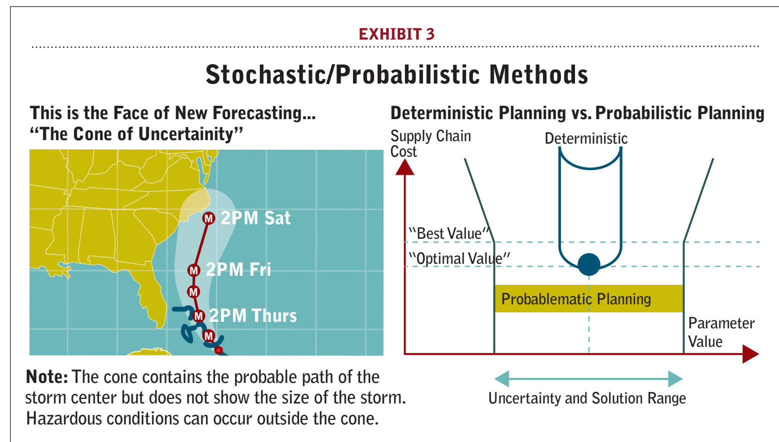
Bayer Crop Science, have begun to integrate the ERM framework into their mature S&OP process. This framework provides companies with mature S&OP processes a formal construct—a roadmap—to begin SCRM. This greatly enhances the potential for success of the endeavor.



Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside the cone.

Scenario Planning using Probabilistic Methods

AMR Research, now part of Gartner, has been speaking about the complexion of the 21st Century supply chain for some time and during that dialogue the topic of probabilistic planning continuously arises. This planning process is supported by stochastic demand management and dynamic inventory planning. How do these approaches open up new opportunities to address supply chain risk management? Let's first get our grounding with a definition from the APICS Dictionary.

The APICS Dictionary says that stochastic models are "models where uncertainty is explicitly considered in the analysis." This approach differs from deterministic models that feature statistical procedures that do not take into account uncertainty. Stochastic models represent the uncertainty of demand with a certain set of outcomes (i.e., a probability distribution) and these models also suggest inventory management strategies under probabilistic demand.

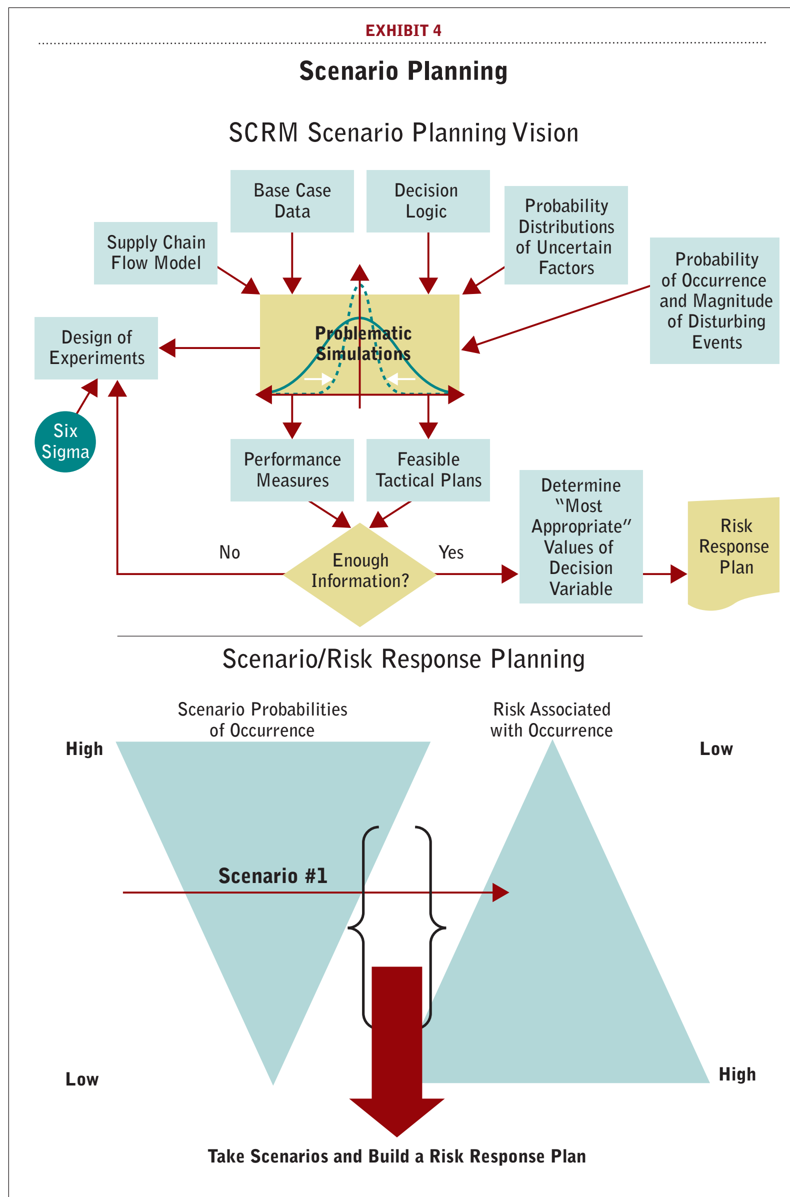
Risks need to be segmented into different categories and then approaches developed that are suitable for each.

Stochastic and statistical methodologies are not new. Academia, the pharmaceutical and medical industries, Wall Street, insurance and banking all have been using these methods to evaluate and mitigate risk for over 50 years. But they are new to the supply chain world.

Leading-edge approaches such as stochastic optimization (SO) methods are algorithms that incorporate probabilistic (random) elements, either in the problem data (in the objective function or the constraints, for example) or in the algorithm itself through random parameter values. This concept contrasts with the traditional deterministic methods where the values of the objective function are assumed to be exact and the computation is determined by the values sampled or observed. Deterministic models are varied and include linear programming, integer programming, simplex method, time series analysis, and regression models.

This is a good point in our discussion to illustrate the differences between the two methodologies. Think of it in terms of a weather man on TV (see Exhibit 3.) When hurricane forecasters talk about a new storm, they present something called the "Cone of Uncertainty," shown on the left side of the exhibit. This cone actually represents a set of outcomes from probabilistic models that attempt to predict where the storm will travel based on probabilities of occurrences. Compare this approach to the traditional deterministic methods where there is no uncertainty within the model. The right side of Exhibit 3 depicts the extremely "V-shaped" solution that deterministic methods attempt to achieve, without uncertainty, in order to present an optimal solution. The probabilistic method, used by weather forecasters, provides a much broader optimal solution across a set of variables within the model, explicitly addressing uncertainty as well.

We are beginning to witness this probabilistic methodology supporting scenario planning in the context of SCRM. What does this process look like? It starts with building a flow model of the enterprise, as illustrated on the top part of Exhibit 4. Then, you populate the model of the enterprise with base case data from an ERP system, identifying the historical behavior and uncertainty of all relevant factors. This includes elements such as lead times, capacities, demand, production, inventory and more. Next, you begin to develop "what-if" scenarios, looking at situations such as demand increasing by 30 percent, demand decreasing by 30 percent, or lead times decreasing. Risk planners next predict the effects of these



changes on service, revenue, capacity, inventory and more, along with their potential probability of occurrences.

With these assumptions codified and historical data in hand, you are ready to run discrete-event simulations across the entire enterprise to review the outcomes and their statistical strengths. The outcomes normally take the shape of histograms—sensitivity curves with confidence intervals, and probabilities of occurrence along with risk assessments. This continuous "execution" of the model, requiring several hundred iterations, can continue until the outcomes, per scenario, are considered statistically significant. This task is accomplished through the use of sensitivity analysis, optimized response curves, and design of experiments (i.e., structured and systematic testing of the process). The outcomes of the scenarios are then prioritized based on their probabilities of occurrence. The final step is to develop a risk response plan (RPP) for the scenarios deemed critical to the enterprise covering the tactical S&OP horizon (the bottom part of Exhibit 4). This approach represents risk management at its sophisticated best.

Techniques, Tactics, and Tool Set Enablers

The emerging techniques, tactics, and tool set enablers designed to manage risk across and end-to-end supply chain are growing rapidly. In fact, the landscape has become much too large to discuss in detail in this article. However, it's valuable to take a glimpse at some of the more promising developments. One of these certainly is demand management that uses stochastic pattern recognition to create statistical confidence intervals, develop sense-and-respond predictive analytics, and build scenario plans. Within manufacturing early adopters are leveraging demand-driven predictive manufacturing (DDPM) methods to model their complex plants. They are running "what-if" scenarios based on planning or event-driven situations to ensure supply chain flexibility and profitable response.

In the area of inventory, leaders are adopting stochastic approaches to planning global inventory targets, taking into account risk levels, historical "pinch-points," and the element of uncertainty by calculating probabilities of occurrences. And in logistics, leaders are developing global supply chain network models that identify three critical information flows—commercial, logistical, and financial—that provide opportunities for global profit optimization through optimal cash conversion cycle management.

Tool sets or enablers also will play an increasingly important role in risk management. The possibilities include massive teraflop databases; discrete-event simulators; business intelligence routines to scan, sift and identify patterns; predictive analytic engines to alert and recommend actions; and web-based risk assessment software that quantifies risk. In addition, we expect to

see the growth of web-based benchmarking programs that compare company-specific risk programs to best-in-class practices, complete with recommended actions to achieve best-in-class status. Finally, balanced scorecard dashboards are becoming available that afford a global status of risk based on new metrics, a feature of the risk war room we describe below.

The Risk War Room

Imagine walking into a room where risk management information is collected, categorized, analyzed, prominently displayed, and widely disseminated to the right people at the right time. Welcome to the risk management war room, an innovation that is still a dream for all but the most advanced supply chain organizations.

The war room's primary role is to act as a central repository for storing, and disseminating as needed, risk-related intelligence. It is staffed with dedicated resources who are tasked with critical activities such as:

- monitoring supplier health;
- collecting and analyzing third-party data;
- spotting disruptive weather patterns;
- tracking material movement around the globe;
- updating a dashboard of risk-related metrics;
- following political and business news and trends;
- responding to specific risk-related information requests from internal customers; and
- sending early warnings to those who would benefit from that information.

The war room staff also helps local units develop their risk management capabilities. For example, the war room would provide local users with risk-related information on their suppliers as soon as it became available.

Several trends taking place support the case for a risk war room. First, there is the movement toward centrally led leadership within supply chain management. The advent of expanded supply chains across the globe has increased the number of nodes in the supply chain, lead times, complexity, and associated risks. In response, many mature supply chain organizations have moved to an end-to-end horizontal approach, supported by a center of excellence. Risk management, because of its enterprise-wide nature, is one of those activities that would benefit greatly from strong, centrally led supply chain leadership. Second, widely dispersed supply chains and economic uncertainty are combining to make risk management an increasingly critical activity. Greater risk requires aggressive approaches—like establishing a risk war room—to meet this challenge.

The most sophisticated war rooms feature comprehensive risk management dashboards that enable the organization to view global status of risk. Typically, this is based on data provided by companies that specialize in monitoring risk conditions around the world. The dashboards also provide the organization with a "heat map" associated with the company's own global supply chain, and provide updates on and status about their risk metrics. These heat maps normally provide specific "temperature checks" on areas of risk, often displayed as green light, yellow light and red light indicators depending on the severity of risk. Heat maps also provide the company with a profile of daily risks across the globe, normally through information services groups, such as NC4.[7] And finally, heat maps provide feedback to the company relative to emerging risk metrics, which include value-at-risk (VAR), time-to-recovery (T-to-R) and resiliency indices, just to mention a few.

Chief Risk Officer

Finally, another emerging best practice is naming a chief risk officer, or CRO, within the organization. A recent study revealed that the responsibility for managing risks across an organization resides mainly with "C" level executives like CEOs, CFOs, and COOs.[8] While at first glance managing risk at the C level might appear to be a good idea, a closer look raises a troubling issue. Namely, these top executives invariably have other duties that consume most of their time and attention. Managing risk is not usually their central focus. Only a small minority of firms has a dedicated risk leader—and far fewer have a chief risk officer.

Risk management across most organizations today follows a "pockets of excellence" model. Within a typical organization, groups develop risk management capabilities simply because they need to develop risk management capabilities. Some of these groups may even be good at managing certain kinds of risk, particularly at the operational level. In other instances, they are not quite so capable. Unfortunately, these dispersed pockets do

The Chief Risk Officer in an organization would have responsibility for governance, risk management, compliance, and barrier issues while building an enterprise-wide risk management framework.

nothing toward creating a coordinated center of excellence that supports an entire organization. This traditional model usually results in risk management techniques that are decentralized, dispersed, incomplete, unsophisticated, uncoordinated and often duplicative across a company.

What would a chief risk officer do to expand this limited perspective on risk management? First and foremost, he or she would be given responsibility for governance which, according to the Aberdeen Group, includes the frameworks, tools, policies, procedures, controls, and decision-making hierarchy needed to manage the business or discipline. Next, the CRO would have direct responsibility for identifying, managing, and mitigating adverse events that could potentially impact the organization. The third key area of responsibility would be compliance. This entails meeting required or mandated regulations, whether they are governmental, industry-specific or internally imposed (such as ISO 28000, ISO 28002, ASIS SPC.1-2009, BSI 25999-2.2007, NFPA 1600:2010, PHARMA RX-360 joint supplier audit, ISO 31000, and C-TPAT).[9] Finally, this individual would spend much of his or her day overcoming the barriers to successful risk management adoption. Such barriers include the tendency of senior management to focus on risk management only during a crisis and to simply add risk management duties to an already busy supply chain staff; the organizational complexity that typically surrounds products and divisions; and the basic challenge of getting many disparate functions to cooperate.

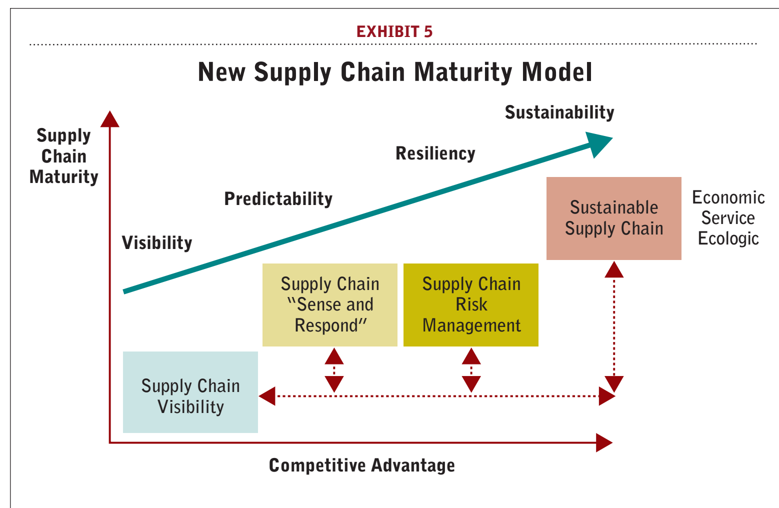
In sum, the chief risk officer will be responsible for identifying, analyzing, evaluating, and treating enterprise-wide risk. We see this position as being on a par with sales, marketing, operations, supply chain, and finance. The CRO will have responsibility for governance, risk management, compliance, and barrier issues while building an enterprise-wide risk management framework upon a foundation of leadership.

Facing the New Normal

Experienced supply managers understand something important—supply chain success demands an understanding of supply chain risk. In fact, these two concepts (success and risk) are almost becoming inseparable. This inseparability demands the development of risk management strategies and approaches. Unfortunately, risk planning can often come across as mundane busywork, particularly when one objective of risk planning is to never have to use the plan.

EXHIBIT 5

New Supply Chain Maturity Model



One thing we know for certain, however, is that global supply chains and global supply chain risks are highly correlated. More than one company has come to realize that failing to take these risks into consideration can have catastrophic consequences. We believe that supply chain risk management is a key enabler in the quest toward a resilient and ultimately sustainable supply chain from an economic, service, and ecologic perspective. We call this progression the New Supply Chain Maturity Model, as depicted in Exhibit 5. And in the new normal business environment we find ourselves in, shouldn't every supply chain leader be aggressively focusing on risk management to advance along that maturity scale?

End Notes:

1 Donovan Favre and John McCreery, "Coming to Grips with Supplier Risk," *Supply Chain Management Review,* September 2008, vol. 12 no. 6, p. 26 citing statistics from Marsh, Inc and Risk & Insurance magazine.

2 "Managing Risk in Global Manufacturing Enterprises," *Industry Week*, May 2011, p. S3.

3 APICS Dictionary Thirteenth addition.

4 From the *PRTM Global Supply Chain Report*, 2012.

5 John Brown, PE, Coca Cola Chief Risk Officer, SCC SCOR North America Conference , May 2011, Baltimore, MD. Used with permission.

6 Risk & Insurance Management Society, (www.rims.org) and Wikipedia 2011.

7 Information services groups identify, codify, and classify actual and potential natural disasters, political issues, terrorist activities each day around the globe.

8 "Managing Risk in Global Manufacturing Enterprises," *Industry Week*, May 2011, p. S3.

9 *The Executive Enterprise Risk Management (ERM) Agenda report,* Aberdeen Group, September 2010.

Getting the Most Out of

By Jonathan Hughes and Jessica Wadd

Jonathan Hughes is a partner and head of the supply chain practice at Vantage Partners, a global management consulting firm. Jessica Wadd is a senior consultant at Vantage Partners, and a member of the firm's supply chain practice. They can be reached at jhughes@vantagepartners.com and jwadd@vantagepartners.com.

Supplier relationship management (SRM) can deliver powerful business benefits. For companies to realize those benefits, though, SRM needs to be comprehensively understood and implemented. The core principles and change management practices offered here can guide that process. Caution: There's a lot more involved that buying a software package.

Only a few years ago, supplier relationship management (SRM) was generally thought of as a software tool. That's not surprising as SAP, Oracle, Ariba, and others have offered multiple products that bear the label "SRM." But true SRM entails much more than purchasing new software. Done right, it's a systematic approach to supply chain collaboration that enhances the business performance of both customers and supplier. But just as customer relationship management (CRM) has proven to be far more about creating a customer-centric culture, transforming business practices, and building new mindsets and skills than simply an IT solution, successfully implementing SRM requires more than the purchase of new software.

In a sense, SRM is picking up where strategic sourcing left off. Despite the significant savings many companies have realized through strategic sourcing over the past two decades, the limitations of this discipline have become increasingly apparent. In a 2008-09 global research study we conducted involving more than 500 companies, buy-side respondents reported that nearly half (46 percent) of potential value from supplier contracts isn't realized during implementation.[1] Perhaps even more surprisingly, sell-side respondents reported delivering only 66 percent of potential contract value.

These sobering statistics point to a key driver behind the development and evolution of SRM as a formal supply chain management discipline. Strategic sourcing, in practice, has led to an enormous focus on interactions with suppliers up to the point of signing new contracts. Yet it has provided relatively little guidance on how to effectively manage the complex and critical interactions between customers and suppliers as they work together to execute against agreements.

Follow-up interviews with study participants revealed the most common sources of value erosion. The research also highlighted the fact that customers and suppliers have very different perceptions of the key causes of lost value—and of who is to blame. Specifically, ***according to customers*** the main reasons

for the gap between potential and realized value are:

• Expected innovation does not materialize (95 percent of participants in a 2010 study we conducted reported a "significant amount" to a "great deal" of innovation potential with suppliers remains untapped).[2]

• Scope changes lead to additional costs.

• Off-contract purchasing undermines expected savings.

• Project delays due to supplier.

• Quality problems.

But according to the suppliers, the gaps were the result of:

• Expected volumes do not materialize.

• Changes in requirements lead to increased and unrecoverable costs.

• Customers do not provide committed resources.

• Project delays due to customers.

We have worked with many companies that prefer the terms "supplier engagement" or "supplier account management" to "SRM." Their motivation is to avoid confusion about the admittedly ambiguous term "relationship." Ultimately, concrete business practices matter more than labels. But whatever term makes sense within your company, we believe that common and unhelpful assumptions about "relationships" with suppliers need to be addressed head-on. The table below summarizes key distinctions and clarifications that need to be made when talking about SRM—both internally and with suppliers.

Not This	But Rather This
• We Play Golf Together • We Avoid Disagreement or Conflict • We Shield Suppliers from Competitive Pressure • We Don't Hold Suppliers Accountable for Commitments and Performance • We Sacrifice Our Obligations to Our Stakeholders • We Are Naively Trusting	• We Treat Suppliers with the Courtesy and Respect Due to All People–in All Our Interactions • We are Candid, and Able to Disagree (Even Forcefully), Without Being Disagreeable • We Hold Ourselves to the Same Standards as Our Suppliers • We Actively Search Out Opportunities for Mutual Benefit • We Actively Seek to Cultivate Mutual Trust

The objective, of course, is to move from the left to the right side of the figure. This article will help you do that. Our aim is to present the core principles underlying SRM, describe some proven best practices to advance the supplier relationship, and offer recommendations for a successful SRM implementation that delivers the desired business benefits.

Value Drivers and Business Benefits of SRM

Before examining the value drivers and business benefits of SRM, it's important to establish a clear definition of the concept. SRM is:

• Enterprise-wide analysis of what activities to engage in with companies you procure goods and services from.

• Coordinated planning and execution of all interactions with suppliers in order to maximize total financial and strategic value.

• Leveraging supplier assets and capabilities for competitive advantage (vs. only focusing on purchasing goods and services at lowest cost).

• *Not managing suppliers*, but *jointly managing interactions* between customer and supplier.

All of our research and experience helping companies over the past 20 years to more effectively manage supplier relationships suggest that working more collaboratively with suppliers delivers significant value. Below are the key practices that have proven most effective in driving value realization.

• **Manage all interactions across the lifecycle of supplier relationships in a systematic, integrated fashion.** In particular, this means maintaining a tight connection between measurements of supplier performance and future sourcing decisions and conducting negotiations in a manner that builds a foundation for working effectively together. (For a look at how one company is accomplishing this, see sidebar on Anglo American.)

• **Manage all interactions with suppliers across business units and functions in a systematic, integrated fashion.** The objective here is to increase efficiency; maximize leverage (both competitive and collaborative); increase trust (by speaking with "one voice" to suppliers); identify and act on systemic opportunities to improve supplier performance; and reduce supply chain risks.

• **Balance competitive pressure with collaborative engagement.** Companies need to move away from the traditional over-reliance on threats (e.g., performance penalties, loss of business) as the primary way to motivate suppliers to deliver maximum value. Sourcing and supply chain organizations need to employ a broader range of strategies to maximize influence with suppliers and improve supplier performance.

• **Systematically manage the interpersonal dimension of supplier relationships.** There are, of course, boundaries that must be drawn and enforced between the personal and the professional when it comes to supplier relationships, or any aspect of business. That said, the human side of supplier relationships needs to be managed—not ignored or assumed away.

• **Fully leverage all supplier assets, expertise and capabilities to maximize competitive advantage.** Identify which suppliers can be more than simply vendors, and move beyond a narrow focus on price, or even total cost of ownership.

What are the business benefits from driving value creation through SRM? In 2006 and 2007, we conducted a global study of relationships between customers and their most strategic suppliers. Buy-side participants reported realizing, on average, 40 percent more value from those suppliers with whom they had the most collaborative relationships (characterized by high levels of trust, mutual respect, and a commitment to mutual benefit) vs. those suppliers with which they had adversarial relations.[3] Sell-side respondents reported delivering, on average, 49 percent more value to those customers with whom they had the most collaborative relationships. In the same study, a majority of respondents reported realizing significant (vs. moderate or little to no) value from their SRM programs, although far fewer reported an ability to effectively quantify benefits. Nonetheless, of those who did report a financial estimate of benefits, the average figure was more than $100 million in incremental value from SRM during the preceding year.

The value that can be realized through effective SRM can take many forms. We have developed a framework that, while not exhaustive, provides a useful way to systematically identify and capitalize on opportunities to create concrete financial and strategic value through SRM. (See Exhibit 1.)

In building the business case for SRM, companies need to recognize that the choice is not whether supplier management is necessary or worthwhile. All companies expend time and effort managing interactions with suppliers. Rather, the choice (which is encapsulated in the table below) is whether to do so in an ad hoc and uncoordinated fashion, or to do so systematically and strategically.

Seven Principles of Effective SRM

Exhibit 2 gives a high-level summary of the relative importance of key SRM levers based on research data we have collected from more than 200 companies over the past two years.[4] The data reflect a clear pattern we have observed in our work with clients in terms of what separates companies with successful SRM programs that deliver significant measurable benefits from those that are less successful. Companies in the latter group focus primarily on software solutions and on specific SRM

"best practices" like holding supplier summits, designating supplier relationship managers, and implementing supplier scorecards. There is nothing wrong with any of these things—indeed, they all have the potential to be useful. But on their own, they rarely deliver significant benefits.

Those companies that achieve the greatest success with SRM focus first and foremost on changing organizational culture, and transforming the way people within their companies—and their supplier counterparts—interact on a daily basis. This requires close attention to the people-side of SRM, to individual mindset and skills. To be clear, we strongly believe in the potential value of software tools to enable companies to efficiently track and leverage data about suppliers, and to automate certain transactions and activities with suppliers. That said, many companies invest too much, too soon in SRM software, and fail to place enough emphasis on those levers that our experience and research show are actually more important—and in fact are required before SRM software can deliver its full potential.

We have identified seven principles that underlie successful SRM initiatives.

1. Focus SRM efforts on suppliers where there is greatest potential to create value and reduce risk. Implementing SRM entails significant investment in change management. This investment should be carefully aligned with opportunities to create new value and/or better manage risk with suppliers. Attempts to implement SRM in an undifferentiated fashion across too many suppliers typically results in wasted time and effort as well as reduced benefits.

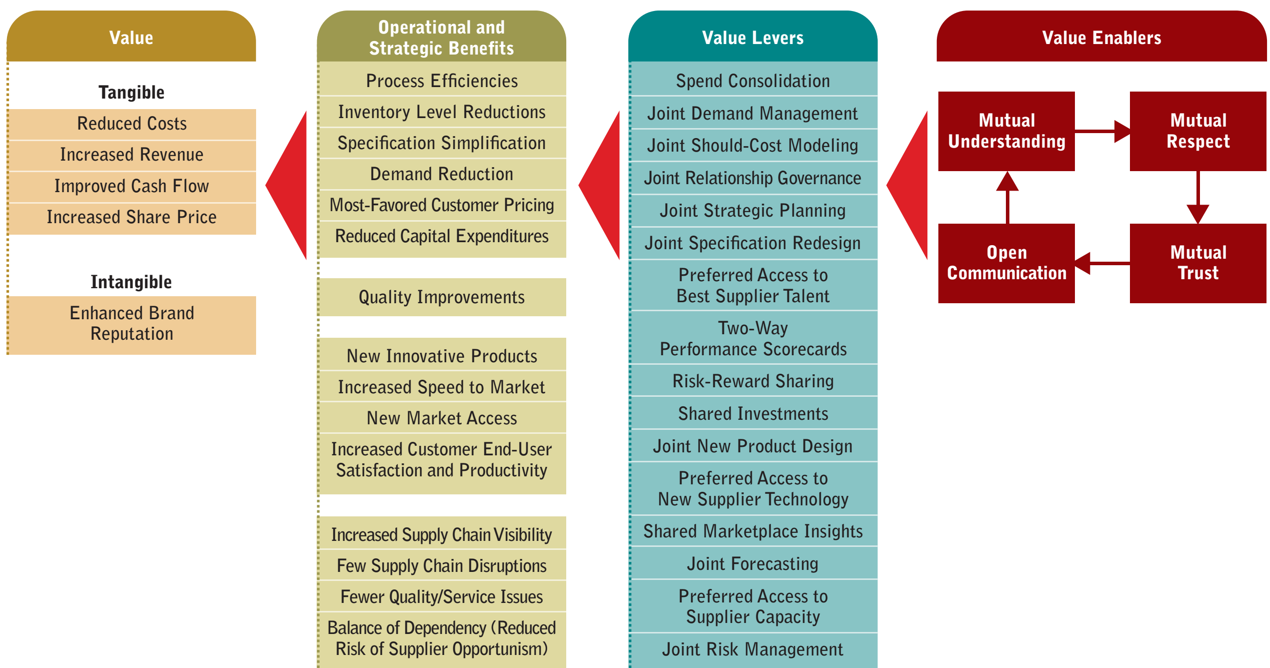
2. Treat all suppliers with a high degree of professionalism and respect. The tendency to treat some suppliers in a high-handed fashion (after all, we're paying them) is deeply engrained in many organizations. A company that tolerates disrespect of even a few suppliers will find that such behavior inevitably leaks over into interactions with strategic suppliers as well—where it has a corrosive impact on value realized.

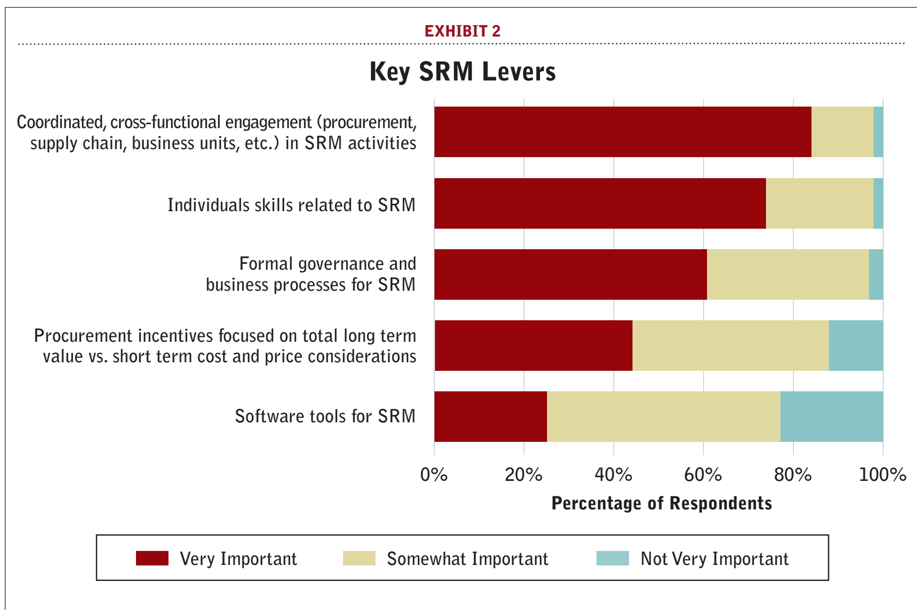
3. Invest in understanding suppliers better. Get to know their strategies, business models, organizational structure, cultures, and capabilities. This enhances your ability to influence suppliers and to identify opportunities to create more value with them.

4. Invest in helping suppliers understand your company better. Similarly, suppliers need to understand your strategy, priorities, organizational structure and culture, and policies and procedures. ,Increase the ability of key suppliers to align their resources and investment, develop solutions, and provide service in a way that optimally aligns with your needs.

EXHIBIT 1

Framework for Creating SRM Value





5. Actively build and sustain trust with suppliers. Trust may seem like a "soft" factor. Nonetheless, the evidence is overwhelming that a lack of trust between customers and suppliers acts as an enormous tax on productivity and a barrier to value creation. Conversely, a high level of trust between business partners facilitates more transparent and efficient information-sharing, as well as a greater willingness to invest time, effort, and capital. This, in turn, enhances the ability to identify new business opportunities, develop innovative solutions, understand and mitigate risk, and diagnose and expeditiously solve problems. Moreover, our experience shows that, contrary to common assumptions, trust with suppliers can be systematically cultivated.

6. Invite supplier feedback on your own company's performance and track benefits to suppliers. Though supplier scorecards are becoming more prevalent, their focus too often remains on measuring supplier performance and related value to the customer. But the root causes of many performance problems do not lie only with suppliers. To illustrate, at one of our clients a 20-year relationship with a key supplier was almost terminated because the supplier could not diagnose and solve a persistent problem with one of their production lines. Fortunately, before relationships were severed, the newly designated SRM manager got involved. After talking to key stakeholders on both sides, he convinced the senior quality engineer at his own company to look at their testing equipment. The punch line: the equipment was miscalibrated. But earlier, when one of the supplier's engineers had raised this as a possibility, he was quickly shouted down.

For value from suppliers to be sustainable, the suppliers must benefit as well. One respected consumer products company has an explicit policy of comparing the performance of suppliers in the same category, and then committing to award more business to those that outperform their peers (and reducing spend with those that underperform). Without incurring the risk of guaranteeing specific purchase volumes to key suppliers, the company motivates continuous improvements in supplier performance through a tight and transparent linking of performance to suppliers' share of spend—which they track and regularly review with their suppliers.

7. Invite and be open to supplier ideas and suggestions. Sourcing and procurement organizations often work to develop tightly defined requirements and specifications, creating (or forcing) apples-to-apples comparisons between and among suppliers. In part, these tactics arise from a tendency to rely heavily on competitive pressure to get best value from suppliers and motivate optimal performance. While such approaches have undeniable benefits, and are certainly appropriate in some circumstances, companies can gain greater value by becoming less prescriptive in their interactions with suppliers, and more willing to undertake apples-to-oranges comparisons between suppliers that have different business models and expertise.

Optimally leveraging suppliers' ideas and expertise requires new skills—the ability to effectively communicate to suppliers about the problem you are seeking to solve, rather than assume too much about the nature of the solution and impose requirements on suppliers that constrain their ability to be creative. This, in turn, requires sourcing and supply chain professionals to get closer to internal business partners; to better understand the underlying needs and priorities of internal stakeholders, as well as the unique capabilities of suppliers; to become more facile in exploring and evaluating various feature, performance and cost trade-offs; and to become more confident and competent at qualitative analysis. The table at the top of the next page summarizes the transformation required:

Traditional Procurement	New Procurement Paradigm
• Source Goods and Services	• Solve Business Problems
• Leverage Over Suppliers	• Engagement with Suppliers
• Focus on Internal Stakeholder Compliance	• Trusted Advisor to Internal Business Partners
• Analytical Skills	• Soft Skills
• Primary Value is Cost Reduction/Management	• Primary Value is Competitive Advantage
• Manage Transactions	• Manage Relationships

Practices that Maximize Supplier Value

With the above SRM principles in mind, we offer the following summary of specific practices that enable companies to maximize the value realized from suppliers.

Multi-Year Joint Business Plans

To realize the huge potential value from greater supplier commitment and from alignment of supplier investments with your priorities and needs, companies need to conduct annual strategic planning with key suppliers. The purpose is to identify and plan for risks and opportunities to both sides over a multi-year time horizon. The output should comprise documented plans with clearly defined goals, initiatives, and committed resources. To obtain full benefit from joint strategic planning activities, the right senior business, commercial, and technical leaders from both sides must be involved. These are the individuals who are best positioned to explore and evaluate new opportunities, make decisions about commitment of resources, and agree on how to share risks and rewards.

Balanced Two-Way Scorecards

SRM requires a balanced scorecard framework to assess both tangible and intangible value to be targeted with different suppliers. Specific metrics should comprise a mix of leading and lagging indicators. Of course, with some suppliers, a limited focus on cost, quality, and service is entirely appropriate; in such cases, traditional KPIs like perfect orders and cost savings are sufficient. For many other suppliers, an expanded focus is needed, though specific metrics will vary significantly from one supplier to another, depending on different risks and opportunities. An effective scorecard framework should guide identification of relevant metrics for any given supplier. Metrics can relate to technical and product innovation; process improvements; end-user satisfaction and productivity; or safety, social, and environmental responsibility. (See Exhibit 1 referenced earlier.)

Relational characteristics like mutual trust and understanding are major drivers, for better or worse, of supplier performance. Thus, regularly and systematically measuring the quality of working relationships with suppliers is essential. The best approach is to carefully construct a set of survey questions that measure concrete behaviors and beliefs. So instead of simply surveying individuals within your organization and supplier counterparts about "the level of trust," ask about specific constituent elements of trust—for example, reliability in meeting commitments, to what extent either side believes the other side has behaved opportunistically, and so on.

Finally, scorecards should include metrics that evaluate customer performance and track benefits realized by suppliers. Measures of benefits realized by suppliers often include year-on-year changes in account sales, account share, solutions developed in collaboration with the customer, and the ROI suppliers realize from developing new technology for a customer and then bringing it to other customers in non-competitive fields.

Joint Performance Reviews and Improvement Initiatives

The use of supplier scorecards has become increasingly common. However, this practice is too rarely coupled with effectively structured review meetings with suppliers where the root causes of any performance shortfalls are jointly diagnosed, where concrete improvement plans are developed, and where excellent performance is formally recognized and celebrated. In the absence of conversations focused on joint learning and defining and committing to actions that will drive improvement, supplier scorecards quickly become a "check-the-box" administrative activity.

Formal Governance

Many companies assign individuals the role of supplier manager or designate executive sponsors for key suppliers. But too often, such roles are poorly defined. Nor are they integrated into a coherent governance structure that ensures coordinated communication, planning, decision-making, and issue escalation and resolution across the range of customer-supplier interactions and touch-points.

Typically, when analyzing relationships with key suppliers for our clients, we find that they involve dozens to hundreds of people on both sides, who are involved in thousands or even tens of thousands of interactions a year. These include everything from demand forecasting, to contracting, to technical collaboration on product design and manufacturing, to quality management to collaboration on special projects. Companies with the most successful SRM programs take a more structured approach by:

- Formally and robustly defining the roles and responsibilities of supplier relationship/account managers and executive sponsors.

Of companies reporting a financial estimate of benefits, the average figure was more than $100 million in incremental value from SRM.

- Clarifying how those roles map to other sourcing and supply chain roles (for example, category managers) to minimize confusion, overlaps, and potential conflict.
- Carefully defining and ensuring alignment between the SRM-specific roles and business leaders and end-users who interact with suppliers.

Finally, to be fully effective, SRM needs to be a two-way street. To that end, effective governance of key suppliers requires careful mapping and alignment of relationship management roles between customers and their suppliers. Of course, a perfect one-to-one mapping of roles typically is neither possible nor necessarily desirable. Instead, the goal should be to ensure that each side understands how decision-making authority and responsibilities are allocated within their counterpart's organization, and that both sides know who to go to get information, escalate issues, and engage in different kinds of conversations.

Change Management and Implementation

Sourcing and supply chain leaders constantly tell us that the most difficult aspect of SRM implementation is change management. Below are four strategies that successful companies employ to meet this challenge:

1. At the outset, engage stakeholders from outside procurement and supply chain. While sourcing and supply management organizations are usually the catalysts for implementing SRM, and are typically responsible for facilitating ongoing SRM activities, supplier relationship management is inherently a cross-functional discipline. As noted above, success depends greatly on the depth and breadth of cross-functional engagement and commitment. Moreover, even in companies that have not yet implemented a formal SRM program, there are always pockets of effective supplier management practices—though they may not be fully systematic or consistent. The earlier that business and other functional stakeholders are involved, and the more they are engaged as partners in implementation, the more likely that the new SRM processes and practices will be successfully adopted.

2. Engage a cross-section of key suppliers to provide early input. It is somewhat ironic that many companies develop and seek to implement SRM programs with little, if any, input from their key suppliers. Failure to do this entails three major costs. First, suppliers are a rich source of ideas and experience about what works, and what doesn't work, when it comes to SRM. It only makes sense to get their input, including what they are doing with other customers.

Second, SRM requires changes not only within the customer organization, but within the supplier's organization. Engaging key suppliers early in the development (or restructuring) of an SRM program means that they are much more likely to understand your expectations and their responsibilities. Equally important, they also are more likely to exhibit genuine buy-in and commitment.

Finally, SRM has the potential to benefit not only customers, but also suppliers—providing them with greater transparency and predictability, and opening up new business opportunities. In exchange for such benefits, customers need to engage their suppliers in explicit conversations about what changes and investments they will make to mirror changes and investments their customer is making in SRM. In particular, this means committing executive time for joint planning and governance activities, and assigning account or relationship managers.

3. Define a clear and compelling business case. Perhaps not surprisingly, companies that define clear, measurable, and business-relevant goals for SRM report significantly greater financial and strategic benefits than those companies that undertake SRM initiatives simply because it's considered to be a supply chain "best practice." In particular, supply chain leaders need to ensure close alignment of SRM priorities with overall business strategies and objectives.

4. Be realistic about required resources. As noted above, our experience shows that formalized supplier relationship management (ultimately) requires little net increase in organizational resources. Implementing SRM entails redirecting the significant time and effort that goes into managing interactions with suppliers in an ad hoc and reactive fashion, into a proactive and coordinated approach. That said, in the short term, significant time and effort is generally required to re-organize, re-train staff, and implement new processes and policies. The most successful companies either make significant investments in change management and in building or enhancing SRM capabilities or they adjust their goals and expectations accordingly. So while SRM is not a "free lunch," we find that it typically yields anywhere between a tenfold and hundredfold return on investment over a three to five year time horizon.

SRM as Competitive Differentiator

According to research we have been conducting over the past two years, 67 percent of supply chain executives and managers believe that SRM will be very important to their company's success during the next three to five years, and another 31 percent say it will be at least somewhat important.[4] As companies become increasingly dependent on suppliers—not only to provide goods and services, but also to support research and development activities, assist with product design and development, and drive innovation—supply management strategies and practices need to catch up to the reality of new risks and new opportunities.

Business and supply chain leaders need to view and treat suppliers as business partners, not simply vendors. This means creating opportunities—and incentives—for suppliers to make investments and align resources (their "A" team personnel, their R&D dollars, and so forth) to support your company and its strategy. Companies that use SRM to become a "customer of choice" can achieve significant competitive advantage relative to their peers who fail to transform their approach to working with suppliers.

End Notes:

1 Hughes, Jonathan, et al. *Customer-Supplier Negotiation Study.* Global research comprising 747 survey responses from at least 591 companies. (Not all respondents disclosed their company.) Boston: Vantage Partners, 2009.

2 Hughes, Jonathan, et al. *Customer-Supplier Negotiation Study.* Global research comprising 499 survey responses from at least 157 companies. (Not all respondents disclosed their company.) Boston: Vantage Partners, 2010.

3 Hughes, Jonathan, et al. *Transforming Trading Relationships into Partnerships: A Cross-Industry Study of Customer-Supplier Collaboration.* Global research comprising 532 survey responses from at least 250 companies. (Not all respondents disclosed their company.) Boston: Vantage Partners, 2007.

4 Hughes, Jonathan, et al. Ongoing research on supplier relationship management. Global research comprising 139 survey responses from at least 71 companies. (Not all respondents disclosed their company.) Boston: Vantage Partners, 2010-2011.

Anglo American's Experience with SRM

A structured approach to SRM commenced in Anglo American, one of the world's largest mining companies, in October 2010 with the support of the Group Executive Committee. Aimed at improving buying power, supplier performance, predictability of project delivery, and access to resources, SRM is providing a consistent approach for developing relationships. In short, it means better service, greater collaboration and sustainable value creation. "We will be maximizing the quality of goods supplied, improving the supply chain process, and looking at the total cost of ownership across our business," said Dominic Podmore, Senior SRM Manager. "With key suppliers, in particular, we'll harness the technical expertise that they can offer as strategic business partners."

Regular account management meetings with suppliers will be used to review performance and discuss any issues, including those encountered at local site level, that have been escalated for effective resolution. "SRM is a supply chain initiative but we don't own the relationships with suppliers. Business units and functions in Anglo American engage suppliers and what we are finding is a number of strong relationships are already well advanced and require little additional input," said Dominic. Supply chain's role is to be the facilitator, supporting the business with useful tools, processes, and fact-based information so that meaningful discussions can be held. "Our goal is to establish a consistent approach to the engagement with our suppliers across our business units and functions," added Dominic. "It requires cooperation from everyone in Anglo American as well as suppliers. SRM seeks to manage performance through our relationships to create value for our organization."

According to Barry Murphy, Head of Projects at Anglo American Copper: "Going beyond the traditional single project commitment and developing associations that are long-lasting and fruitful means that our suppliers can attract and retain the right workforces in support of our pipeline of projects. This is particularly relevant in a labor market where the skills necessary for successful project execution are becoming increasingly scarce."

Andrew Hinkly, Group Head of Supply Chain, added: "The aim of SRM is to establish new ways of working with processes and associated behaviors which forge collaborative value based partnerships. Effective partnerships are essential for our business: based on mutual respect and trust, they allow us to solve problems and create value. Anglo American benefits greatly from supplier partnerships to develop new technology, improve operational performance, and deliver mutually beneficial commercial outcomes."

A Framework for Safety Excellence: LESSONS FROM UPS

By Jayanth Jayaram, Jeff Smith, Sunny Park, and Dan McMackin

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UPS believes that there is no room for unsafe work practices in any aspect of its operations. The comprehensive safety framework it has developed affirms that belief. At the base of this framework is personal value—a commitment by every employee to the safety system. This article offers key lessons learned from the UPS experience and suggests some broader implications for supply chain management.

On a visit to UPS's Worldport facility, which sits on 600 acres in Louisville, you would see why people call it one of the New Seven Wonders of the World. At the heart of the company's global transportation network, this sophisticated mega hub sorts approximately 416,000 packages per hour over 115 miles of conveyor belts. On any typical day, the facility unloads 1.2 million packages from all around the world and then loads the sorted packages back onto more than 130 outbound flights within just five hours. UPS seamlessly choreographs all movements with an objective of minimizing delays, flaws, or disruptions. An internal research team estimated that the Worldport facility had one mis-sort for every 4,826 packages that flow through, which roughly translates to 99.9998 percent accuracy.

At Worldport and at other UPS facilities, every employee attends a pre-work communications meeting, which always concludes with a safety tip. Safety is a core value to UPS, and there is no room for unsafe work practices. Why does UPS commit to high safety standards? How does the company encourage the involvement of all employees in safety activities? This article seeks to answer these questions. We also offer some valuable "lessons learned" from the UPS experience for companies in other industries to consider. Finally, we outline the broader supply chain implications of a comprehensive safety initiative.

The importance of considering safety issues when designing products, processes, and supply chains can be seen from a negative perspective—that is, the many examples of what can happen when safety is compromised. The 2011 Tohoku earthquake in Japan that put tremendous pressure on nuclear facilities, the 2010 mining accident in Chile, numerous product recalls in the toy industry, the BP oil spill, and Toyota's unintended acceleration case. All of these examples point to the importance of safety. As with firms that are exemplars in sustainability excellence,

the companies that are exemplars in safety excellence tend to be proactive, not reactive. This article focuses on one such exemplar of safety: UPS.

Building Excellence Through a Safety Framework

Even though UPS has always kept a keen eye on safe operations, it did not formalize its safety system until 1995. (The accompanying sidebar on page 34 gives a quick overview of UPS.) At that time, insurance agencies in Maine almost ceased offering workers compensation insurance for all businesses due to the high rate of injury cases in the state (more than twice the national average). Instead of dropping the coverage, the agencies approached the area's largest employers to help develop a plan to reduce the number of injuries. It is from this simple instance that UPS launched a new initiative called the Comprehensive Health and Safety Process (CHSP), which set the company on its journey towards preventing accidents and reducing injuries.

CHSP was established using a pyramid as an enabling model (see Exhibit 1). The pyramid was chosen because of the structure's stability, which is symbolic of the overall importance of a safe working environment. At the base of the pyramid are personal values, which are the values that individual employees have towards safety norms. These individual values form the core components of the safety system. Moving up from the base, the

CHSP pyramid includes management commitment and employee involvement, worksite analysis, hazard prevention and control, and safety education and training.

The safety process must be unwavering even in difficult times (bad weather or high production demands). In fact, it is during these times that even more focus needs to be placed on the safety process. UPS achieves this by making safety a core personal value of its employees. The reason: while priorities can change, core values never do.

The idea that the safety system should center on the individual is based on the premise that once safety becomes part of the individual's value set, it will underlie all subsequent actions as the default expectation. By focusing on individuals first, the responsibility and control of a comprehensive safety process rests with employees, not management. The common understanding is that safety starts at a personal level, and is therefore everyone's responsibility. CHSP empowers workers, via safety committees, to be responsible for all aspects of safety. The importance attached to the individual's role is evidenced by a comment from a senior-level manager, who noted that "employees are 90 percent of the solution."

Support from the Top

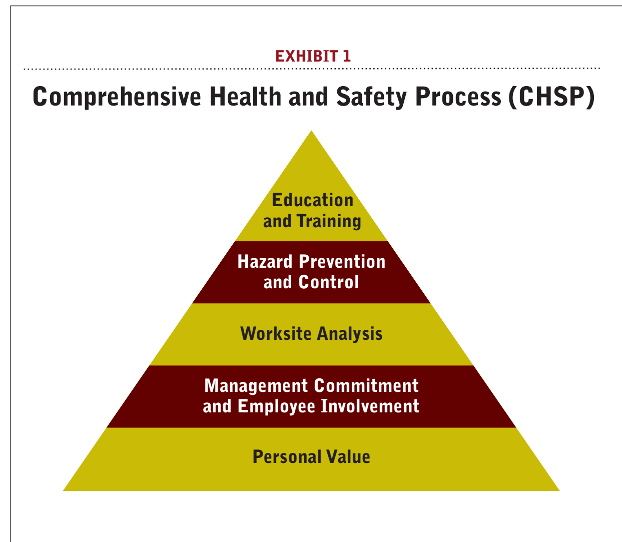
While making safety a personal value is essential, safety also must be a core value to the organization. To that end, UPS's Senior Vice President of U.S. Operations convenes a meeting twice a year with the company's senior operations managers to discuss nothing but safety. That type of emphasis from senior leaders is necessary to make safety a part of the organization's culture—a true core value. UPS recognizes that safety has to start with senior management and must be embraced across all levels of the company.

The Comprehensive Health and Safety Process is called a process and not a program because unlike programs that tend to start and stop, a process tends to evolve. One example of that evolution was the change to the fundamental base of the CHSP pyramid. In 1995, the base was management commitment and employee involvement. In 2004, the base was changed to personal value to elevate safety above all operational concerns.

Once the individual focus is established, there is a need to include decision makers from all levels of the organization. This leads to the creation of the second tier of the pyramid that addresses employee involvement and management commitment. A typical CHSP committee consists of 10 percent of the workforce. Companywide, UPS has trained and deployed 40,000 CHSP members. The combination of front-line employees and management focusing jointly on safety reinforces its overall importance, while offering a mechanism whereby all activities can be refined to advance safe working habits. The actionable component of this tier lies with the safety committees, where management and non-management representatives interact on a regular basis to address any issues that arise.

EXHIBIT 1

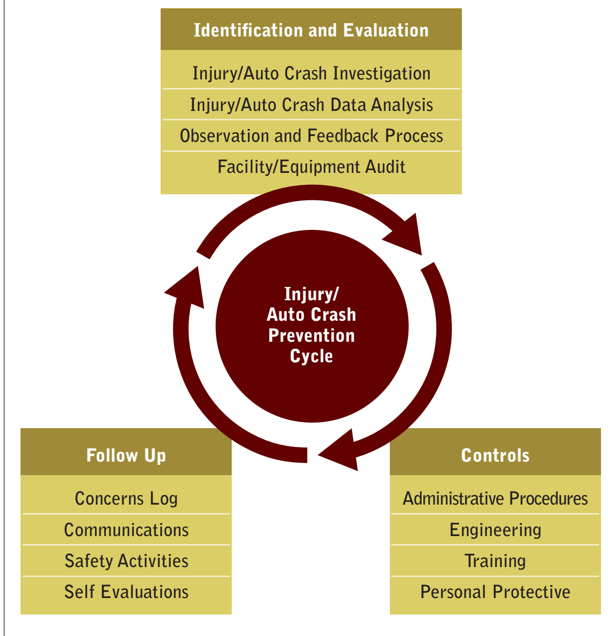
Comprehensive Health and Safety Process (CHSP)



The role of management is not to dominate the safety committee process, but to support it. Management shows this support by allowing the committee time to get safety activities completed and offering assistance in getting solutions accomplished. Beyond the meetings, managers are required to sign a Declaration of Management Commitment, whereby the manager formally accepts the fact that wellness and safety are at the forefront of the operational decision process and that there is an expectation for zero accidents/injuries to occur under her or his watch.

The next level of the pyramid is work site analysis, which is the formal examination of injuries and auto crashes, observations on work methods and techniques, and facility/equipment audits. It is in work site analysis that the company really begins to show its true colors. As one manager noted, "UPS is really just an engineering company that happens to deliver packages."

The formal investigation and analysis of all unsafe instances affords the opportunity to look for any root causes so as to eliminate their recurrence. A quick review of the CHSP Committee Member Handbook demonstrates the importance that UPS places on work site analysis; approximately one-third of the document is devoted to how instances will be calculated, investigated, evaluated and corrected (see Exhibit 2). Company representatives familiar with CHSP universally noted



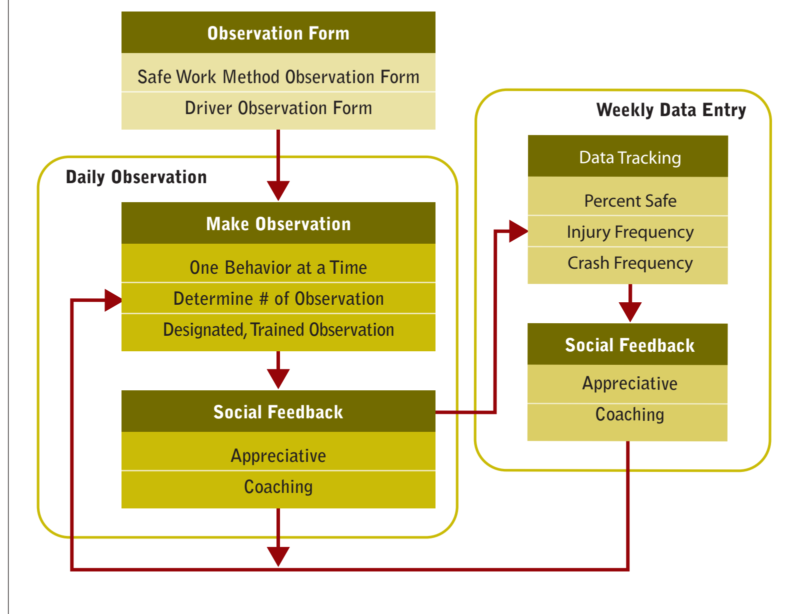
that this in-depth analysis enables employees to quickly address and correct unsafe activities.

The company's formal description of the worksite analysis process is as follows. Worksite analysis is the component of the Comprehensive Health and Safety Process that assists a committee in developing safety activities to address injuries and auto crashes in their work area. The analysis helps them analyze injury/crash data and formulate a plan of action associated with the most frequent and most severe incidents. Worksite analysis uses many tools. The primary ones include past injury/auto data, injury/crash prevention reports, facility audits, an employee concerns log, and observation and feedback process. (Exhibit 3 depicts the observation and feedback process.)

To conduct a thorough worksite analysis, each committee is provided with a planning tool in an Excel workbook containing two and a half years of injury and crash data. The committee uses these workbooks to analyze the data and drill down to the most common and most severe injuries and crashes for their facilities, and by job function. The workbook provides claim details so that CHSP committee members can determine trends as to when injuries and crashes occur, factors that contribute to them, or even road conditions at the time of a crash. Once the analysis is complete, it serves as the basis for a 15-month action plan.

The next layer of the CHSP pyramid deals with hazard prevention and control, which is the mechanism for generating potential solutions to problems outlined in the analysis. The solutions process is captured in a "concerns log," the safety committee's tool for demonstrating that issues are being addressed. The log includes all the specifics of the concern—to whom it was assigned, the scheduled resolution date, and the actual date it was resolved.

Beyond the concerns log, the company has invested considerable time and resources in the direct observations of safe work methods. Employees are directly observed by management and non-management while performing the required job tasks. They are then provided positive feedback on their methods. The goal is to reduce the likelihood of an injury or auto crash occurring as a result of not performing the job correctly. The key to the observational method is that feedback be in the form of both reinforcing (motivational feedback) and coaching (formative feedback). This dual nature of the feedback ultimately results in reinforcing the behavioral part of the individual's personal value set towards safe practices, confirming why personal value is at the base



Snapshot of UPS

Founded as a bicycle messenger service in 1907, UPS today is the largest package delivery company in the world, and the second largest U.S. employer (after Walmart). Beyond delivery operations, the company offers a multitude of value-added services, which include specialized transportation services and tailored supply chain solutions. In short, the company's mantra, "We Love Logistics" encompasses its role in supply chain management.

The complexity of moving 15.6 million packages a day—equal to 6 percent of the U.S. daily GDP—is evident by the size of UPS's operations. The company has 1,800 operating facilities, approximately 100,000 vehicles (including more than 2,000 alternative-fuel vehicles), and more than 230 UPS owned and 294 chartered airplanes. When this is coupled with the fact that UPS has nearly 400,000 employees and 7 million daily customers, it's clear that the chances for accidents are high. In fact, 15 percent of all workplace fatalities occur in the transport, warehousing and utilities industry, even though this sector only employs 5 percent of the total U.S. workforce (NIOSH, 2011).[1] The trucking portion of this sector accounts for 58 percent of the industry's fatalities.

Due to the size, scope, and breadth of UPS operations, occupational health and safety has always been critical. This is apparent in UPS's internal slogan, "an employee's most important stop is that last one s/he makes at home." This is in contrast to other companies where some levels of accidents are seen as inevitable. At UPS, the expectation is zero injuries and zero auto crashes. And the company has won safety accolades from the National Safety Council and the American Association of Motor Vehicle Administrators, among others.

of the pyramid. In 2010, UPS conducted more than 135 million work observations in its effort to prevent injuries and auto crashes. The company believes that when coupled with the employee mentoring program, the next evolution of CHSP will prove even more effective, and possibly result in even fewer unsafe incidents.

Safety education and training is at the top of the pyramid. This component not only addresses employee safety expectations, but also promotes overall wellness of employees and their families. Education and training represent the culmination of all other pyramid principles, wherein each employee now has all the tools necessary to enable him or her to work safely.

UPS has mentoring programs to help prepare new hires for the job. These programs focus on four functional groups: inside employee, delivery driver, feeder driver (tractor/trailer), and CHSP co-chair. Non-management employees lead the process in each mentoring component. In addition, each program provides training for the mentors in their areas of expertise and in soft skills. The inside employee and delivery driver mentoring programs, for example, have specific topics discussed daily for six weeks. The idea is for the new employee to learn a new topic and establish a relationship with a senior employee on a daily basis. All of the mentoring programs are tracked and audited.

In addition to the workplace safety activities, UPS emphasizes overall wellness. The company provides information and assistance on issues such as nutrition, smoking cessation, and exercise programs. Worldwide, UPS has more than 4,000 CHSP committees and virtually every committee has a wellness champion who educates the workers and their families on health-related topics. Essentially, the company is willing to help employees lead healthier lives, viewing these programs as investments in productivity.

In short, CHSP is a comprehensive safety process with a simple goal: Having UPS employees work in a zero-incident environment. Overall, the safety process has been extremely effective. Injury frequencies have been reduced by over 92 percent since the development and implementation of CHSP in 1995. These results have been realized throughout the organization. For example, the Aurora, Colo., facility achieved a 74 percent reduction in auto accidents, with serious auto incidents (called Tier 3 within UPS) decreasing to zero in 2010. Additionally, lost-time injuries at Aurora have decreased over 85 percent from 2006 to 2010.

In Greensboro, N.C., employees on the evening shift recently celebrated a milestone of 100,000 safe work days. That group of 400 employees has been working for over a year without a single lost-time injury. These results are not uncommon as the Comprehensive Health and Safety Process continues to be improved.

Building on Lessons Learned

UPS's experience with the CHSP program has yielded some important "lessons learned"—lessons that may well resonate with companies in other industries pursuing their own supply chain safety initiatives. Six particular lessons deserve mention here:

1. Successes, both large and small, need to be recognized. UPS has learned that safer employees are also more productive employees. This is reflected in the company's emphasis on the personal value component of the CHSP as well as in the recognition programs devel-

oped to reinforce a strong safety culture. Both are clear signals to employees that safety is vital to the organization and not just lip service.

For its 100,000 drivers, UPS recognizes safe driving milestones in five-year increments. It also has a program called the Circle of Honor that recognizes any driver who attains 25 years without an avoidable accident. UPS's senior most-safe driver, who has gone 49 years without an avoidable accident, was featured in a 30-minute television program called, appropriately enough, "American Trucker." UPS has 5,428 active drivers with 25 years or more of safe driving. The company also recognizes part-time employees for working safely. It is not uncommon to have work groups achieve over 100,000 safe work days.

Each UPS facility is encouraged to develop its own recognition program, and CHSP committees are trained on how to effectively utilize rewards and recognition. This training teaches them the difference between different tiers of rewards. Tier I rewards focus on individuals and their behaviors. For example, individuals that minimize at-risk behaviors such as bending at the knees (not at the waist), or using their "power zone" by keeping the package between their knees and shoulders and close to the body are praised for their efforts. Tier II awards emphasize group accomplishments. For example, driver groups that go a whole week without an accident are given a cookout or put in a raffle for a pair of driver socks. Tier III awards recognize facility successes such as an entire building going for a length of time, say 10,000 days without an injury. Such a performance is rewarded with cookouts and breakfast cooked by the management team. This tiered approach allows CHSP committees to drive the recognition process, making it meaningful for all employees.

2. *Process stages and work methods must be formally outlined*. UPS views itself as an engineering company that happens to deliver packages. That engineering mindset recognizes the need to formalize work methods and process activities, outlining all steps and stages so as to gain a more complete understanding of everything that the process encompasses. By understanding all the intricacies of every task that is performed, a company is better equipped to know where unsafe activities can potentially occur.

3. *Training (and re-training) on the methods sets the stage for safe actions.* Once a system has been formally defined, training mechanisms need to be developed, communicated, and made routine. UPS understands that continuously making employees aware of the keys to working safely is a central component of a good safety process. This heightened sense of awareness keeps safety in the forefront of an individual's thinking while making safe work habits the default method in times of stress.

4. *Performance measurement is essential.* A comprehensive safety program requires that all employees act toward a common mission. Importantly, measures must be in place to gauge their progress against that mission. In general, measurements need to be suited to the specific environment. But the real key is that metrics reflect the goals of the processes as well as the manner in which individuals are trained. From such measurements, a company will be able to evaluate its progress toward meeting the goal of a safer workplace.

The Comprehensive Health and Safety Process is called a process and not a program because unlike programs that tend to start and stop, a process tends to evolve.

5. *Analysis should focus on root causes.* The assessment of safety should not stop at the measurements themselves. It also needs to look to the reasons behind the numbers. The key is to delve deeply into the analysis in order to determine the root causes of accidents, injuries, or even unsafe behaviors. Understanding the cause leads to better solutions that, in turn, lead to improved performance.

6. *Giving the system to the people is the ultimate key to continued safe operation.* An effective safety process relies on the individuals working within the context of the operating environment. Empowerment in its truest sense is practiced by entrusting frontline hourly workers, drivers, and package handlers, with the responsibility for safety. This represents an evolvement from a system that was driven totally by management to a system wherein the employees drove safety initiatives. By giving more control to frontline people, UPS changed an engulfed culture of managerial-driven actions that had been in place for almost 90 years.

Implications for Supply Chain Management

The UPS case study has broader implications for multiple facets of supply chain management. And as with the lessons learned, these implications extend to companies

across business sectors.

First and foremost, there is the need to incorporate the safety provision in all process designs. This holds true for any business—from manufacturing companies to restaurants and hospitals—where people are integral parts of the system. Specifically, safety aspects must be designed in the process at every level of activity, from the task level to the overall operating level of a facility.[2] For instance, while designing the layout of distribution centers, proper measures for adequate lighting, heating and cooling, aisle spaces, and ergonomic work design must be considered. Because of the long-term nature of process design decisions, non-optimal choices will be hard to change in the near term and can prove to be very expensive over the long term.

Second, the implications for supply chain design stem from the in-depth process analysis that is undertaken to understand how product design and process design are interconnected. More specifically, improper product and/or process design features could contribute to the occurrence of accidents and injuries. Over and above the gains from fewer accidents and injuries, UPS was able to build a leaner supply chain by using a combination of lean and Six Sigma tools and the scientific method. In fact, this expertise was developed to such an extent that the company offers supply chain consulting to small and medium enterprises in the area of inventory management and supply chain redesign.

Third, with respect to fleet design, the recent emphasis on carbon footprints and energy costs has put tremendous pressure on companies to think innovatively about cutting energy costs and reducing consumption of non-renewable energy sources. When diesel costs started to increase sharply, UPS came up with a GIS-based planning system that monitored idle times of the fleet. This led to an innovative solution for improving fuel efficiency: Reduce the number left turns taken by drivers. As another example, UPS in its distribution centers uses battery-operated material handling trucks that can be recharged at the distribution center for a longer, more efficient operating life cycle.

Fourth, the UPS case study has important implications for talent development of people involved in the safety efforts. By giving employees ownership in the safety process and encouraging creativity, UPS benefitted from lower injury rates, more productive employees and facilities, and more satisfied workers who experienced a sense of pride and fulfillment from their job environment. It is interesting to note that at UPS almost everyone starts part-time. Individuals then apply for the full-time driver slots once they have proven themselves in the sorting ranks (not unlike an apprenticeship system).

UPS prides itself on its promotion from within policy. It has learned through the decades that managers who have a deep understanding of the business are the best candidates to transition into staff functions like Health and Safety. That's why nearly every safety manager in the UPS network has come from within the company's operational setting.

Fifth, the UPS story has implications for training needs. UPS invests in an intensive, on-the-job training regimen that teaches employees the fundamentals of the company's Health and Safety system. New safety managers also attend "Safety 101" workshops for one week at corporate headquarters. This ensures consistent adherence to regulatory constraints and internal processes. There is a heavy emphasis on operational training as well. Tractor-trailer drivers receive 40 hours of training, comprised of 40 hours in the classroom training and 40 hours on the road. Delivery drivers undergo an intensive six-day training program. Training and testing is taken seriously. In fact, employees can be demoted from driving back to the sorting ranks if they fall behind on their safety training and performance.

Finally, the UPS case study has implications for supply chain-wide communications with stakeholders. The successful implementation of the safety process at one site is diffused to other sites and shared through the company's intranet-based tool on health, safety, and wellness. In addition, UPS regularly communicates its successes with the safety initiatives to external customers.

All in all, the UPS story is a comprehensive illustration of excellence in safety across multiple dimensions. And through its pursuit of superior metrics, the company continues to raise the bar. Indeed, UPS has set the stage for other companies to follow suit while providing some valuable lessons learned to help them in that endeavor.

End notes:

1 National Institute for Occupational Safety and Health (NIOSH) 2011. http://www.cdc.gov/niosh/nora.

2 Jayaram, J. Das, A., and Nicolae, M., 2010. "Looking Beyond the Obvious: The Synergistic Benefits of the Principles underlying Toyota Production Systems," *International Journal of Production Economics*, 128(1), 280-291.

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OUTSOURCING GOVERNANCE: Why *INSIGHT* beats *OVERSIGHT*

By Kate Vitasek, Jerry Stevens, and Katherine Kawamoto

Outsourcing has been a boon to many. Yet in still too many cases the outsourcing arrangement fails to live up to its real potential. One recurring problem: the lack of a proper governance structure that provides consistent management, policies, and decision-making rights. When done within the context of a mutually beneficial "Vested Outsourcing" relationship, good governance can help both parties achieve their ultimate goal—business success.

For many years, companies have looked to outsourcing as a way to reduce costs and increase supply chain productivity. But according to studies by the Corporate Executive Board, up to 90 percent of the value of an outsourcing deal can be eroded because of poor relationship governance.[1] The Outsourcing Center, an internet site for supply chain thought leadership, agrees. The center reports that poor governance plays a role in outsourcing failures as much as 62 percent of the time.[2] The value erosion or "savings leakage" that can result from poor governance is, in fact, a pressing problem for companies today.

Proper governance in an outsourcing arrangement is critical because the supplier or service provider becomes an extension of the company doing the outsourcing. A sound governance structure provides consistent management along with cohesive policies, processes, and decision rights that enable parties to work together effectively and collaboratively over the life of the agreement. Perhaps most importantly, good governance maximizes the potential for successful contract implementation.

This article explores the nature of good governance within the context of Vested Outsourcing, a concept that is being researched and advanced through work at the University of Tennessee.

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Through Vested Outsourcing and its Five Rules, the parties work toward mutual success based on optimizing for innovation and improved service, reducing costs to the buying company, and improving profits for the outsource provider.[3] A good governance structure supports these goals. UT researchers studied highly successful outsourcing relationships and found that all followed a basic governance tenet: the company outsourcing embraced "insight vs. oversight" in how it worked with the supplier to manage the scope of the outsourced services. In fact, the fifth rule of Vested Outsourcing says that governance structures should provide insight into the outsource relationship, not merely oversight or bean-counting. (See the full UT report on Outsourcing Governance at www.vestedoutsourcing.com in the "Resource" tab.)

UT researchers teamed with the Corporate Executive Board and the International Association of Contract and Commercial Management to develop a framework for sound governance of outsourcing agreements that adopt a mutually beneficial "Vested" model. The framework consists of these three elements:[4]

1. Relationship Management—This element formulates and supports joint policies that emphasize the importance of building collaborative working relationships, attitudes, and behaviors.

2. Transformation Management—Vested agreements are transformative because change in this environment is desirable and expected. This change needs to be managed during and after the transition from old to new.

3. Exit Management—The future is unknown. Even the best-conceived plans may fail and unforeseen events

can completely change the business environment. An exit management component of the governance structure provides procedures to handle these unknowns.

Exhibit 1 summarizes these three elements of a Vested governance structure—which is founded on an "insight" mentality—and compares these with traditional arrangements built on "oversight." In considering the key elements, it's important to remember that there is no secret sauce that magically creates a Vested governance structure. There's no one-size-fits-all approach.

The following sections discuss the principal elements of sound governance in a Vested outsourcing relationship.

EXHIBIT 1

Three Elements of a Vested Governance Structure

Element	Vested Mentality—Insight	Traditional Mentality—Oversight
Relationship Management	• Relationship management focus. • Reverse bow tie structure, layers. • Joint policies that emphasize collaborative working relationships, attitudes and behaviors.	• Service provider management focus. • Bow tie structure. • Agreements viewed as risk avoidance mechanisms that monitor transactions/functions.
Transformation Management	• Agreement components viewed as a flexible framework. • Regular contact/review systems for service, performance, IP, and IT updates; joint review boards for potential agreement changes and service issues. • Focus on performance and transformation. • Emphasis on end-to end business metrics as well as service provider SLAs. • Mutual accountability for desired outcomes; focus on root cause analysis. • Ecosystem that encourages and rewards innovation.	• Agreement components viewed as fixed. • Infrequent communication or only when emergencies arise. • Little or no provisions for regular reviews beyond monthly revenue/cost accounting reports. • Focus on service provider metrics and scorecards • Narrow SLA focus on the service provider SLA targets; focus on reporting. • No clear systems that set joint processes for innovation as a continuing culture beyond "feel-good" PR.
Exit Management	• Addresses how to handle future unknowns. • Based on fairness. • Seeks to keep parties whole in the event of a separation that is not the result of poor performance.	• Focus on Ts and Cs that are risk averse. • Entity with the most power typically uses that power to negotiate in their favor without regard to fairness.

Element 1: Relationship Management

This core element establishes the mechanisms for managing the relationship and the business. Importantly, it also covers how the parties address changes in the agreement itself—and changes will inevitably happen. In our view, relationship management is mainly about operational alignment, the process by which the parties arrange the people and systems to manage the outsourcing agreement. We've identified six techniques for aligning organizations, each of which is discussed more fully below.

WIIFWe (Vested)	WIIFMe (Conventional)
Finding a way to meet both our needs.	Getting the service provider to meet our needs.
Work together to achieve the performance and compensation goals.	"It's in the agreement; now it's the service provider's problem."
Communicate the issues, jointly find solutions.	Blame and punish the service provider.
Integrated planning and communications.	Unpleasant surprises.

Many companies that outsource believe they have achieved the necessary alignment simply because they have deployed Service Relationship Management (SRM) techniques. SRM is the practice of creating mechanisms to increase the efficiency and effectiveness in how a company works with its service providers to lower business costs. But SRM in and of itself is not enough. For true organizational alignment, SRM also needs to incorporate the Vested Outsourcing principle of win-win thinking. We call this WIIFWe, or "what's in it for we." This mindset is particularly important when developing processes to jointly manage the business to achieve desired outcomes.

The biggest difference between strategically managing a relationship and simply managing a service provider starts with the philosophy of how the parties work together. The table to the left contrasts the relationship management approach (WIIFWe) with conventional management of a service provider (WIIFMe, or "what's in it for me"). A Vested governance structure embeds WIIFWe thinking into each SRM best practice.[5]

With that Vested WIIFWe mindset firmly in place, companies can pursue **six key actions** that lead to real organizational alignment:

1. Create a Tiered Management Structure for Governance

A tiered management structure is a layered approach, with each tier having specific responsibilities for managing different aspects of the business. This approach creates vertical alignment among upper management, mid-management, and day-to-day workforce. Each layer is responsible for advancing the outsourcing relationship to achieve business success through its respective "lens." Each layer also works to make sure that the relationship is focused not only on the tactical elements, but also on the strategic and transformational components.

We recommend a three-tiered organizational framework, as illustrated in Exhibit 2. This three-tier layered governance structure can work well in almost any type of Vested relationship. It ensures that the organization is receiving guidance in a timely and consistent manner from three key perspectives: functional working levels, operational level, and executive level. The tiered structure also facilitates decision making. When an issue cannot be resolved at one level, it can be readily escalated to the next level of the framework.

The biggest difference between strategically managing a relationship and simply managing a service provider starts with the philosophy of how the parties work together.

2. Establish Service Delivery, Transformation and Commercial Management Roles

A Vested agreement by design is meant to drive transformation; accordingly, a governance structure needs to promote and drive transformational efforts. This activity falls into three primary governance roles: service delivery management, transformation management, and agreement compliance.

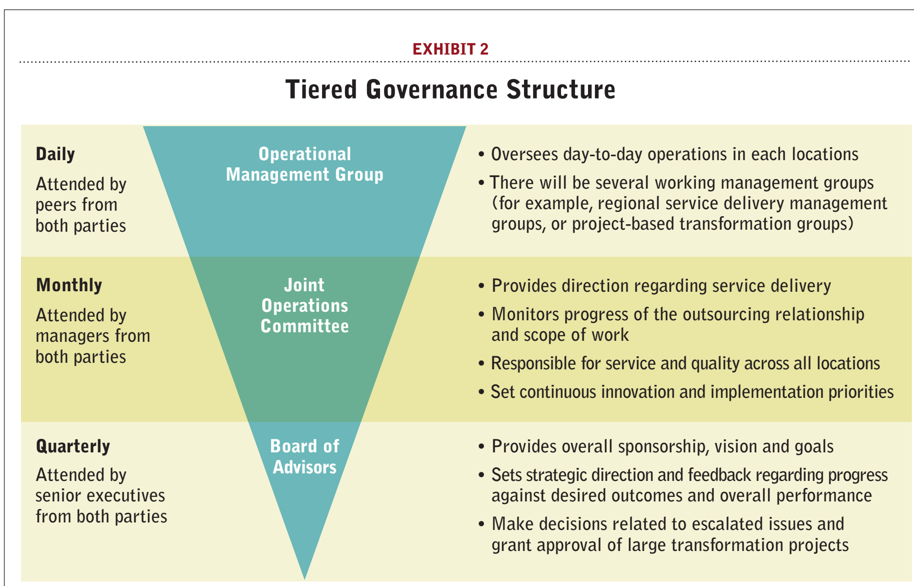
Each governance role is outlined below:

• *Service Delivery and Management.* This role focuses on the efficient delivery of service, responsiveness to customers, and ensuring that service delivery complies with regulatory and internal policy requirements. The size of the group managing this will vary according to the size of the deal, but is preferably limited in number. For example, a large global outsourcing deal might have six people dedicated to service delivery management—with a full time person from both the buyer and supplier being responsible for three regions (North America, Europe/Africa, and Asia).

• *Transformation Management.* This role drives ideas, innovations and process changes across the parties. The size of this group will also vary according to the deal size.

• *Commercial and Relationship Management.* This role manages the commercial and contractual aspects of the outsourcing relationship as well as the overall relationship across the various stakeholders in the two organizations.

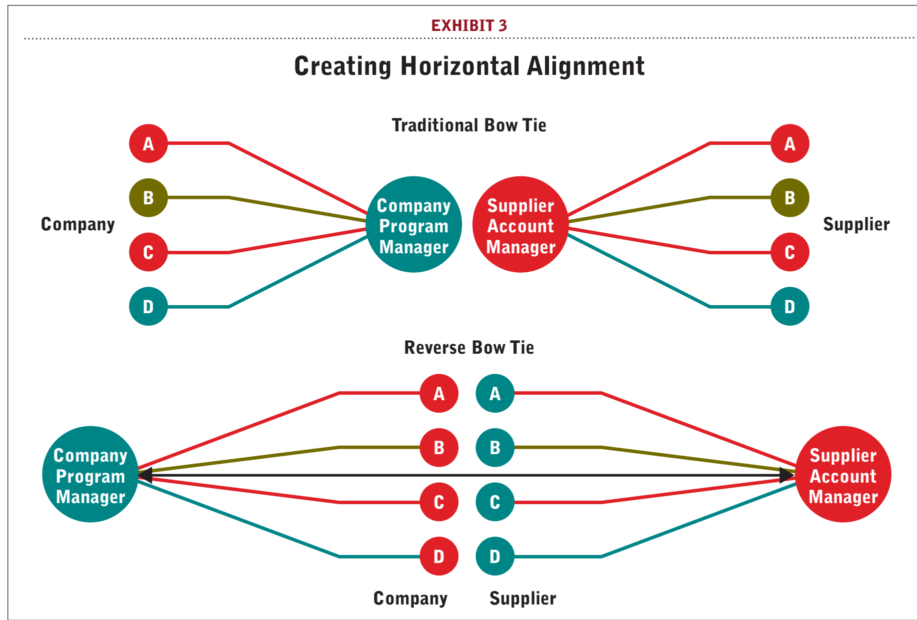
These functional governance roles are included in the governance framework that the parties agree to. Ideally, the governance structure is formally included into the actual contractual agreement.



3. Adopt Peer-to-Peer Communication Model

After establishing the tiered structure and the various functional roles within that structure, the parties should focus on horizontal integration. One way to do this is through mapping the various individuals involved using a peer-to-peer alignment approach commonly known as a "reverse bow tie." (See Exhibit 3.) Many companies insist on using traditional hierarchical

structures in which everything flows through the outsourcing company's program manager and the service provider's account manager. This approach is depicted on the top half of Exhibit 3 as a "traditional bow tie" model.



We recommend direct functional communication through the appropriate contacts in the respective organizations—that is, the reverse bow tie approach as shown on the bottom half of the exhibit. Using this approach, managers of specific aspects of the outsourcing agreement take responsibility for keeping the company's program manager and the service provider's account manager informed. This communication model improves the flow of information and helps to empower company and service provider teams.

4. Develop a Communications Cadence

Establishing a regular cadence of communications is an important aspect of the governance structure. Such a cadence is the "rhythm of the business." It puts in place a practical mechanism to help the parties manage the business. As with any collaborative endeavor, regularly scheduled conference calls, team meetings, and face-to-face formal reviews are the grease for the wheels. Governance involves free-flowing communication between operational groups, their managers, and the companies' executives. The most successful teams have formal mechanisms (and informal protocols) for talking on a daily, weekly, monthly, quarterly and annual basis.

5. Develop a Process to Maintain Continuity

One of the most often-heard pushbacks from organizations contemplating Vested Outsourcing is, "I love the concept, but what if we sign up for risks under the agreement and the players change and throw out the rules? The pendulum swings and any progress we have made through our trusting relationship is lost."

This is a real fear. To help allay it, the governance framework should contain a process for ensuring employee continuity. Here are some best practices:

- Mutually identify a limited number of personnel that are designated as "key personnel" for both parties.
- Establish a provision that prevents either party from removing, replacing, or reassigning key personnel during an established timeframe. Two to three years is a reasonable duration that still enables individual promotions.
- Develop a process for communicating key personnel changes. For example, establish communications protocols when key personnel become unavailable because of sickness, jury duty, resignation, and so forth.
- Establish a process for promptly replacing key personnel.
- Use a formal escalation process for personnel issues. For example, in some cases one of the parties (typically the company outsourcing) might have employees that denigrate or verbally abuse the service provider's personnel. This is intolerable. The agreement should have provisions that address such improper behavior between the parties or between employees.

6. Establish a Performance Management Program

Vested Outsourcing isn't just about implementing an innovative program. It's also about governing a day-to-day business relationship. Thus, a performance management program must be established that:

- Measures end-to-end performance against KPIs and desired outcomes, not just service level agreements (SLAs).
- Provides a mechanism to measure the overall health of the relationship and effectiveness of transformation efforts.
- Enables the parties to "score" performance to identify any shortfalls.

• Includes a neutral third party to help facilitate decisions on final performance scores and other aspects of governance.

• Includes a proactive problem-solving and dispute resolution process.

Element 2: Transformation Management

A successful Vested Outsourcing agreement needs transformation management processes in place to help the organization stay aligned. This is crucial because the one constant in a dynamic business environment is change. And change can put pressures on even the steadiest of relationships. A Vested agreement establishes mechanisms to deal with changes in a way that will ensure that the organizations stay aligned and continue to work effectively together towards the desired outcomes. Specifically, the transformation management processes should allow the agreement to evolve in a controlled manner. It should support—not hinder—continuous improvement and innovation.

Specifically, the transformation management processes should allow the agreement to evolve in a controlled manner. It should support—not hinder—continuous improvement and innovation.

The transformation management element of an agreement should contain four components, each targeted at a different aspect of the transformation:

1. It should clearly and comprehensively document how the initial transition of work will be managed. This ensures that the relationship gets off to a good start by establishing clear parameters.

2. It should include philosophies for driving overall transformation initiatives—called a continuous innovation management process. This part of the agreement sets the protocols and processes outlining how the company will manage ideas that both parties need to agree to and invest in order to achieve their desired outcomes.

3. The agreement should contain a process for managing day-to-day continuous improvement efforts as well as any problems that arise.

4. It should include a process for updating and managing changes to the actual agreement.

Only by establishing clear protocols and processes for each of these elements will the organization achieve maximum effectiveness as it drives transformation.

The Initial Transition

The agreement may represent a transition from a company-operated function to a new service provider or from an old service provider to a new one. Or it may simply entail a scope change and a new way of doing things in an existing relationship. If there is considerable work scope shifts in an existing relationship, the Vested agreement should formally describe how each party will manage the transition by including the following three essential activities associated with the initial transition process.

• Maintain team continuity from the initial sourcing process through transition to day-to-day operations.

• Develop an effective communication and training campaign around the transition, including a formal "blueprint" of the work to be done. This ensures that the key work scope elements are transferred and the appropriate resources are established.

• Create a high-level target plan. Though some of the operating details likely will change, the Vested agreement requires a high-level transition plan agreed to by the parties. The plan will include assumptions, milestones, key dependencies, performance criteria, quality control and delivery management procedures. In addition, the plan will address requirements around testing methodology and transition project management protocols such as progress reviews and issues resolution.

Continuous Innovation Management

If it is to achieve its real potential, a Vested Relationship cannot be static. For this reason, the agreement should include formal processes for managing ideas, opportunities, and innovations that can help the parties achieve their desired outcomes.

A Vested Outsourcing agreement rewards service providers for innovative ideas and investments that deliver results against the desired outcomes. Innovation in products and processes is critical—in fact, it's the key driver of economic growth for businesses. Nobel Laureate Robert Solow found that 87 percent of all business growth comes from technological innovations.[6] Establishing a joint continuous innovation management process, therefore, is a fundamental part of a Vested agreement. The process should detail exactly how the parties will communicate and make investment decisions with regard to potential innovations that can help both parties achieve the desired outcomes.

Continuous innovation management relies not only

on the parties' ability to collaborate and generate ideas, but also on their ability to implement ideas that can deliver value. The problem here generally isn't a lack of ideas; it's their execution. So we recommended developing a mechanism for "scoring" projects by value so as to identify the top candidates for continuous innovation.

In creating an innovation management process, keep the following suggestions in mind:

• Keep ideas in an "innovation pipeline." Just because an idea was rejected once, that doesn't mean it cannot be revisited and reevaluated in the future.

• Track how many ideas are generated relative to how many get implemented. The best companies will implement a large number of ideas—as much as 90 percent of those identified.

• Develop a Pareto chart[7] of reason codes as to why ideas do not get implemented.

• Clearly document desired hurdle rates for proposed idea/projects and create a formal process that teams can use to help them capture and quantify their ideas.

• Develop a decision framework and process for selecting ideas to implement.

Continuous Improvement Program

The third transformation management component is a continuous improvement program for managing day-to-day operations. These programs are different from continuous innovation management, which tends to focus on larger-scale transformation initiatives that likely need investments or resources.

Continuous improvement programs often are cross-organizational in nature and are tied to the desired outcomes. These initiatives come in all forms—Six Sigma and Lean being two of the most popular. Regardless of the particular program adopted, it should have the following attributes: jointly adopted (not a one-party program); transparent fact-based decisions; end-to-end focus on accountability; customer satisfaction surveys (including external customers and end users); and formal benchmarking reports.

Change Control Procedures

The agreement should have change control procedures that are used to request, assess, process and approve, or reject modifications to the agreement. The parties adopt a written change request process that is used to initiate a formal change to the agreement. A change request is required for modifications that affect the price or related costs of the services, impact the delivery of the service, or impact the obligations of either party under the agreement.

Typical events that trigger change requests can include:

• Changes in applicable law that have a material impact on the services.

• Introduction of new or updated technology tools.

• Changes in volumes not included in the agreed upon pricing.

• Changes in work scope not included in the agreed upon pricing that will require additional staffing or costs.

• Changes to service-level targets.

• Changes in key personnel.

• Requests for additional work for one-time projects that will require additional staffing.

• Changes in assumptions outlined in the pricing model.

Element 3: Exit Management Plan

Because nothing lasts forever, the governance framework should address this critical question: What happens when the agreement ends?

If the agreement is properly structured and is achieving the desired outcomes while continually improving performance, renewal of the contract is likely. Yet sometimes relationships can fail no matter how promising the start, how well intentioned the parties, or how carefully the objectives are identified. Business and market conditions can change suddenly; people move on; projections fail to pan out and companies change hands. An important facet of the governance framework, therefore, is a credible exit management plan.

One of the potential dangers of outsourcing is that a company becomes so entwined with and dependent on the service provider that it believes the pain of terminating the agreement outweighs the potential benefits of changing providers. This happens most often when service provider management becomes service provider abdication. By maintaining a Vested mindset and emphasizing balance in the company-service provider relationship, two good things happen: (1) the likelihood of the partnership degrading becomes less and (2) the process of dissolving the partnership if circumstances dictate becomes more straightforward.

An exit management plan will facilitate a smooth, effective transition of services delivery with minimum disruption of ongoing operations. The plan also will result in the efficient completion of all agreement obligations. The exit management plan typically is invoked

with the issuance of a formal termination notice under the agreement, specifying:

• The portion of services included in the scope of termination.

• The estimated exit transition period and vendor services affected.

• Following a termination notice, a timetable for the specific scope of transition services.

A summary of the components of an effective exit management plan follows.

Termination Notice. The exit management plan takes effect when a formal termination notice is delivered by either party or when services are transitioned once the agreement or work scope expires. The termination notice must be specific about the services affected (including processes and geographies). The notices also must include or identify an estimated exit transition period; service provider delivery centers affected by the transition; the location of replacement delivery centers; and vendor transition assistance charges.

Exit Transition Period. Just as there is a transition period when an outsourcing agreement is first implemented, there is a transition period in the event of agreement termination. This period generally will run from the date of the termination notice to the date upon which any transition services are completed.

Exit Transition Plan. The objective of an exit transition plan is a smooth, effective, and uninterrupted transition of service delivery with a minimum of disruption and efficient completion of all obligations under the agreement. This can only happen if there is a plan to make it happen—and if the plan is managed through an exit management process that is established within the agreement's overall governance structure. A dedicated manager should be named to supervise the exit management team

Governance and Reporting. The exit management process should be managed within the overall governance structure developed as part of the agreement. The exit transition plan should address any issues arising from the termination of services and should specify reporting requirements. If the exit transition period is short (under 60 days), daily or weekly reporting to the exit transition team is advisable. The exit management plan will provide a sort of reverse view of the entire governance framework, in essence outlining the vital steps to "unwind" the relationship.

Collaborative Governance Structure

Governance is largely unchartered territory for outsourcing contracts—often ill represented in the contract or omitted altogether. Yet the lack of a proper governance structure is one of the main reasons that agreements sputter or fail. All outsourcing agreements should include governance as part of their formal agreement. Formalizing and documenting a joint governance process will help the parties work effectively together after the contract is signed.

Our work has shown the most effective governance structures are those that are built on providing insight, and not merely oversight of the supplier. We call this approach a Vested governance structure because in managing the relationship a company and its service provider have a vested interest in each other's success. A good Vested governance structure encourages the parties to work together for mutual benefit by creating three interlocking and overlapping structural, flexible and collaborative elements—relationship management, transformation management, and exit management. The framework and the three elements provide the roadmap to help companies implement the core Vested Outsourcing principle that a collaborative governance structure should be based on insight rather than oversight.

We hope this article has helped to provide a sound framework for governance, allowing you to put the concept of governance into practice.

End Notes:

1 "3PL Management New Tips and Tools," *Operations Leadership Exchange: The Corporate Executive Board*, 2009.

2 As cited by Expense Management Solutions and Sourcing Interests Group in a 2008 presentation at the SIG Global Sourcing Summit.

3 The Five Rules of Vested Outsourcing are: (1) Focus on Outcomes, Not Transactions; (2) Focus on the What, Not the How; (3) Agree on Clearly Defined and Measurable Outcomes; (4) Optimize Pricing Model Incentives; and (5) Governance Structure Should Provide Insight, not Merely Oversight

4 The Vested Outsourcing Manual outlines four elements, but we are only covering three in this article. The fourth element is to ensure regulatory, compliance or other special requirements such as intellectual property or infrastructure are spelled out.

5 Expense Management Solutions, *Complex Outsourced Services: A Strategic Framework* (Institute for Supply Management presentation, May 2007).

6 Robert Solow, "Technical Change and the Aggregate Production Function," *Review of Economics and Statistics 39* (1957): 312-320.

7 A Pareto chart is a graph showing the most frequently occurring problems or sources of problems in descending order.

HOW to Prep for a WINNING NEGOTIATION

Too often, supply chain and procurement leaders are not well-prepared for complex negotiations with key suppliers. So what does it take to get ready for even the toughest adversaries? Here are seven techniques that top supply management negotiators put into action—techniques that prove effective even when the deck is stacked against them.

By Mark Trowbridge

Although supply chain managers today have access to a wide range of e-sourcing and auction technology tools, they still use conventional negotiations as the way to establish or adjust the business relationships. Most senior procurement professionals would agree that this is the preferred way to handle alliances and strategic supplier relationships, which collectively account for a large proportion of supply chain spending.

In my many years of leading negotiations on behalf of Fortune 100 companies, and in training corporate and conference audiences on best practices in negotiations, I've become impressed with the levels of preparation of the typical supplier negotiating team compared to their procurement opponents. It's apparent that those suppliers' teams are making the time to cover every possibility they can think of. The team on the other side of the table? Not so much.

Inventor Thomas Edison is quoted as having once said, "A genius is just a talented person who does his homework." Many negotiation experts have rightly observed that 75 percent of the total time spent in the negotiation process should be spent in preparation activities, which should ideally include important

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tasks such as the solicitation and evaluation of supplier proposals, the development of a negotiation strategy, and the endorsement of the senior management team.

Nobody should ever underestimate the importance of securing the support of top management and the heads of the business groups impacted by the negotiation. Sometimes it takes great time and energy to get the stakeholders' buy-in for the negotiating approach. But failure to do so will impair the negotiation team's ability to perform.

Nor should there be a question about the need to solicit and evaluate proposals from suppliers. When competitive solicitations are part of an optimal multi-stage sourcing strategy, the supply chain management team has the advantage of beginning the negotiation from a known point. The RFx process can also provide the team with valuable information about the supplier's company.

At the same time, it is essential to craft a clear strategy for the negotiation. This strategy should formalize the primary and secondary objectives to be addressed with the supplier. It should identify acceptable ranges of solutions for each negotiable element such as the maximum supportable solution (MSS) and least acceptable solution (LSS), as well as clearly identifying the "best alternative to a negotiated agreement" (BATNA)—the fall-back plan in the event that the negotiation is not successful.[1]

These are the basics. In fact, preparation should go much further. The remainder of this article will describe seven preparation techniques that can empower the procurement team to produce a winning negotiation performance time after time. Let's look at each technique in turn below.

Technique 1: Familiarize Your Team with the Supplier's Company

Although my colleagues and I usually train corporate procurement groups on best practices they can use in negotiations, we sometimes train Fortune 500 sales groups on the same topic. We have come to understand that the average sales team usually enters a high-value negotiation knowing far more about the buying organization than the other way around.

Here's one recent snapshot. A leader of a 100-person sourcing group at a healthcare organization recently told me that during a break in a recent negotiation between his team and a major supplier, he had noticed that one of the supplier's negotiation team members had left their leather notebook open. On the exposed pages were printouts of the LinkedIn profiles of each of the healthcare company's negotiation team members, several bullet points of each person's perceived "likes" and "dislikes," and key leverage points to use on each person. This procurement executive conceded that the sales group was far more prepared for the negotiation than was his own team.

There is little excuse for the procurement team not to spend some time reviewing the supplier's company website in advance of the negotiation event. This easily accessed information will usually

provide detailed information about the supplier's various business lines, operational facilities, growth plans, company history, and so forth. Most supplier websites also have a page named "press releases" that can help get your negotiation team up-to-date on major events affecting the supplier.

The site will probably list some of the names of the supplier's customers; a short time spent on Google or LinkedIn can usually help to find the procurement leader of the supplier company's current customers, opening the door for the purchaser to contact and speak with other procurement professionals about non-confidential aspects of their negotiations with this same supplier.

Nor is it onerous to spend half an hour reading the supplier's annual report (assuming, of course, that the company is publicly listed). This document not only provides important financial information that can be advantageous to the buying organization—everything from profitability to debt load to revenue growth—but it can also reveal business plans about capacity, expansion, and so forth. In one case, a single fact noticed in a distributor's annual report provided invaluable intelligence for upcoming negotiations, enabling me to save the company $2.5 million over time.

The average sales team usually enters a high-value negotiation knowing far more about the buying organization than the other way around.

Sometimes it's worth it to personally purchase just one share of a supplier company's stock. It's nice to automatically receive the company's annual report and quarterly financial statements—and nicer still if the information they contain turns out to be critical to your personal career success.

A third technique that procurement professionals should use to become smarter about their prospective suppliers is to read the research available through their own online brokerage services (for example, E*TRADE, TD Ameritrade, Charles Schwab) in order to access stock analyst ratings and reports on the supplier company's stock. Stock analysts are paid experts who review company operations and identify strengths and weaknesses—exactly the type of information we need to have before entering a key negotiation. Your personal brokerage website can also be set up to flag the supplier's stock symbol. This lets you know when there is news about the company or when the stock increases or decreases by a predefined amount.

It's also good to use the information that your company's finance or sales organizations may already have about the supplier. This may include information about the supplier's financial stability from sources such as Dun & Bradstreet or Experian, general updates from news stream sources such as Thompson Reuters, and company or industry analytic information from subscription services like Hoover's or the Corporate Executive Board.

Technique 2: Discover the Supplier's Agenda

The procurement negotiation team can gather valuable information about the supplier's team and its strategy even before the negotiation begins. We find it useful to e-mail the supplier's team leader, volunteering our team to prepare a written agenda to be distributed to all participants and requesting two key sets of information: (1) attendee names, titles, e-mail addresses, and phone numbers of everyone who will be representing the supplier in the negotiations and (2) a list of the issues that the supplier wishes to discuss. By combining this information with your own team's information, you have enough to prepare a written agenda.

This "discovery" phase brings several benefits. First, you'll know in advance who from the supplier's organization will be participating in the negotiations. It's very useful, for example, to know if the supplier's attorney will be there. With this advance notice, you can arrange to have one of your company lawyers attend the meeting. The supplier may wish to play "musical chairs" later, but this technique makes such attempts very obvious to everyone involved. The buying organization can close the door on any issues raised due to an unannounced participant.

Also, by receiving a list of the issues that the supplier wants to talk about, it's less likely that they will surprise your team with a topic to which you're not prepared to respond. And the buying team can sequence all the negotiation issues in a way that will build momentum in the negotiation, lead more logically to resolution of key issues, and more readily drive the negotiation toward an outcome that favors the buyer.

Importantly, the pre-questions will also put the supplier on notice about the issues on your team's agenda. That way, they will come prepared for that interaction;

they can't easily say: "Sorry, we're not prepared to discuss that today."

Technique 3: Profile the Supplier's Negotiating Team Personnel

Now that you have the list of who will probably be on the other side of the table, it's important to try to get to know these individuals before meeting them in person. Trust takes time to earn; the more you can do ahead of time to establish the foundations of a relationship, the more you are likely to win trust.

The U.S. Federal Bureau of Investigation employs talented analysts who profile the criminals they want to capture and arrest. Just as importantly, skilled procurement negotiators should profile the behaviors, personality types, temperaments, and learning styles of their negotiating opponents. This should be done well in advance of key negotiations, and can make a huge difference in how your team deals with the supplier's representatives.

There are plenty of ways to learn about the personalities of those your team will shake hands with on the first day of negotiations. A good starting point is to go to social networks such as LinkedIn or Facebook. There you can very quickly get a sense of the men and women themselves—their educational backgrounds, ages, where they've lived, companies they've worked for, where their professional interests lie, what they do in their spare time, what sports teams they follow, and much more.

If the other side is a current supplier, it's invaluable to meet with one or more of the company's executive team several months before an important negotiation. The meeting can take place as part of a typical supplier relationship review or it can be set up as a casual business lunch.

Another method is to strategically ask the supplier's sales representative or inside customer service person a little bit about the executive's personality type and management style. As long as the negotiation is not in the immediate future, they will usually be glad to provide this information. And once their opponents are profiled, the negotiation team will be empowered to deal with their leaders in a more innovative manner.

Technique 4: Review the Supplier's Performance History

There's an old expression that says those who cannot remember the past are condemned to repeat it. While that may not be strictly true, it certainly underscores the importance of checking on any past relationships between buyer and supplier. Information about the supplier's past performance can be extremely valuable when negotiating a new relationship.

Assuming that your company has a good supplier management program in place, then it should be fairly straightforward to review the opposing party's performance records and scorecards. It's also very useful to interview anyone from your organization who has managed earlier relationships with this supplier, as they may have useful advice for the negotiating approach. They can also provide helpful information about the supplier's history of performance for your organization.

Many negotiation experts have rightly observed that 75 percent of the total time spent in the negotiation process should be spent in preparation activities.

Several years ago, our firm helped a large company to renegotiate an important outsourced technology service relationship. This was a single-source circumstance, and thus our negotiating team had little leverage. The company's management team warned us that the supplier had successfully increased its prices at all prior contract renewals.

Sure enough, the supplier notified the company of a cost increase before we even entered the negotiation session. Seeing what we were going to be up against, I asked our team to review the supplier's historical performance with them. One key metric put the supplier at a historical 95 percent performance level—a level that was acceptable to the company that we were helping. Our investigation of the supplier's published marketing materials revealed statements that said most of their customers experienced a 98 to 99 percent performance level for the same metric.

So when we entered the negotiations, we took a different approach: We indicated that we would agree to a modest fee increase but nothing near what the supplier had proposed. The supplier's team was somewhat surprised. Later, we told them that our company would only pay their proposed fee level if they provided the 99 percent level that they said they delivered to others. Anything less would invoke tiered penalties. Specifically,

for each percentage point drop in monthly performance, we insisted on a 3 percent reduction in total fees. The supplier reluctantly agreed. Two years later, they have still not improved their performance to the promised level. In that time, our client company has received an ongoing 12 percent cost savings.

Technique 5: Select and Prepare Your Negotiation Team

It shouldn't be necessary to say that each member of the buyer's team should be very well prepared for the big day. But in our experience, many procurement negotiators still short-change this basic.

The fundamental step is to ensure that the right players are on the negotiating team. Ideally, they should have been on the cross-functional sourcing team that has been preparing for the negotiations. They should have a common understanding of the history leading up to the negotiation and the goals for it. Team members should be chosen, or excluded, based on their leadership and negotiation abilities. Your team must comprise decision-makers who cover the scope of the negotiable elements to be discussed.

We mentioned that the wrong team members should be excluded. Let's face it: There are some employees who really shouldn't be part of a negotiating team. It might be the senior manager who always manages to work around procurement, or the engineering director who is friendly with one of the supplier's vice presidents. Or it might simply be the manager who always gives in to other's requests.

If you are obliged to include a "problem person" or weak player for political or positional reasons, consider a divide-and-conquer staffing strategy. Using this approach, a large negotiation group might be broken into specialty sub-teams to limit the involvement of certain people. This approach worked very well during a sourcing project for one of the world's largest insurance companies. The insurer wanted to replace more than 2,000 of its multi-function devices, copiers, printers, fax machines, scanners, and other digital office equipment. The buying team had gone through the strategic sourcing process and narrowed the field to the leading finalist, which was invited to the insurer's headquarters for a week of negotiations.

Unfortunately, one of the insurance firm's senior information technology professionals fell into traps set by the supplier—enhancements that the technology person found hard to resist. Observing this, my team suggested that the negotiation teams could be more effective if broken into sub-groups focused on technology, commercial terms and pricing, and legal contract terms. The technology person was assigned only to the technical team, and we narrowed the focus of the other teams. The results? The insurance company saved $5 million a year through the concessions this supplier made during the subsequent negotiations.

With the team assembled, it's then necessary to assign responsibilities. Of course, each individual will have been picked for his or her organizational responsibilities, but each must be assigned additional responsibilities that facilitate the smooth functioning of the team. One person should be assigned to take notes, for example. Because it is the buying organization that should volunteer to create the agenda, it also should be the one that prepares and distributes meeting minutes that reflect the buying organization's careful notes on the negotiated concessions. Another person might be assigned to perform financial calculations, probably using a Microsoft Excel workbook that can recalculate total cost of ownership with simple cell entries. Others might be tasked with observing and reporting on body language exhibited by the opposing team, or noticing which opponents are taking notes, and with what kind of intensity.

Technique 6: Rehearse Non-Verbal Signals

If your child's soccer or baseball coach can successfully communicate and rehearse hand signals with her young players, so too can your negotiation team. Simple nonverbal cues can be a great asset during negotiations. At a minimum, the buyer's team needs to understand when to stop talking, or when to change the direction of the discussion, or when to take a break to caucus among themselves. The signals do not need to be theatrical or exaggerated; they can be as simple as tapping or clicking a pen, touching an ear, or closing a notebook.

Mobile phones set on silence or vibrate can also be used with care to transmit short text messages. But it is important to avoid the obvious effects of having multiple people reading or typing during the negotiation process.

Failure to have pre-arranged signals—and to have rehearsed them properly well ahead of the meeting—raises the risk that difficult topics may be aired in front of the opposing group or that the buying team will lose momentum or appear disorganized. You do not want to be in a situation where your last resort is to kick a colleague under the table to stop him or her from sharing confidential information.

Technique 7: Develop and Complete a Strategy Worksheet

The negotiating team should go through a structured strategy development process well in advance of the meeting with the other side. That process, which may

EXHIBIT 1

Sample of a Negotiation Strategy Worksheet

Supplier Name		Their Team		Our Team	

Target #	Description of Negotiable Element	Must Have? (Y/N)	Like to Have? (Y/N)	Maximum Supported Solution (MSS)	Last Acceptable Solution (LAS)	Key Approach Factors
Best Alternative to a Negotiated Action (BATNA) Fallback Plan:						

involve review or creation of many pages of analysis, can typically be summarized in a simple negotiation strategy sheet. (See example in Exhibit 1.)

It is amazing to observe some supply chain professionals who have not laid out their negotiation strategy in writing. Just a little confusion about the key elements or targets of the negotiation event can result in a team member saying the wrong thing at the incorrect time. Just as an army or sports team graphically lays out its strategy, a procurement negotiation team needs to set forth its strategy in writing to ensure full understanding and buy-in from the team members. Having the strategy summarized on a negotiation worksheet also can help the team to review its objectives just before entering the negotiation room.

Under no circumstances should you ever let your opponents see your summary sheet or planning materials. I firmly believe that every salesperson is taught, at a very early stage, how to read writing upside down. My own experience in procurement negotiations also has taught me to read things upside down across a table.

So what's the best way to have your worksheet available but not visible to the other side? Go to the supplier's website and right-click on their logo. Copy it to the middle of a clean Microsoft Word document, title the page something like "Negotiation with ACME Corporation" and then staple the document in front of the strategy worksheet and supporting documents. The supplier will be surprised that your company is taking the negotiation more seriously than their other customers. And your team's confidential information will be protected.

Electronic tools like an iPad can be used to display strategy information. But again, it's important that the team members aren't focusing on their electronic devices rather than participating in the negotiation itself.

Success Goes to the Well Prepared

When high-value contracts and supplier relationships are at stake, the company that is better prepared is the one that will sail through tough negotiations confidently—and with outcomes very much in its favor. Importantly, that confidence will come because you have spent the time and effort to prepare, not in spite of it. There is no more perilous negotiation scenario than being over-confident to the point where you believe that preparation need only be minimal. It is equally dangerous to underestimate the capabilities of the supplier's negotiating team.

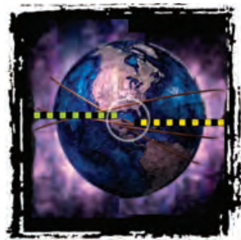
It was Abraham Lincoln who once said, "If I had eight hours to chop down a tree, I'd spend six sharpening my axe." Those are words with which to win every supplier negotiation.

End notes:

1 Roger Fisher and William Ury, *Harvard Program on Negotiation (PON)*

The Risks in Remote Locations

By Wim Plaizier, Michael McCool, and Guillaume Cretenot



The reasons for relocating industries to remote locations are twofold: (1) natural resources are becoming scarcer and (2) their extraction takes place in increasingly distant locations. Resource-processing industries follow this trend because it is more efficient to organize supply chains for processed products than for raw materials—this is because products are usually of a lower quantity and higher value.

The rapid rise of emerging countries such as Brazil, Russia, India, and China (the BRIC countries) and Central Asia means that the demand for basic materials is often in areas with a dearth of infrastructure. For example, 80 percent of the rise in steel production between 2006 and 2010 was from the BRIC countries. Similarly, China and India alone represent 48 percent of the additional refining capacity between 2000 and 2008.

Supply chains in remote locations present major costs, challenges, and risks and have a significant impact on project strategy, specifications, profitability—and, ultimately, investment decisions.

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Supply Chain Costs and Complications

Supply chain costs in remote locations can be high and significantly differ between potential markets. As a result, product pricing and net costs ("netback prices" in the oil and gas business) can vary greatly. This has board-level implications; for example, the supply chain issues might result in the initially chosen market becoming less than ideal. And while slavish insistence on delivery to that market can destroy value, moving to a different market could have political or counterpart-relationship ramifications that cannot be dealt with effectively at lower levels. The move to a different market may also mean changing product specifications, which in turn may require the use of a radically different overall supply chain and investment strategy. The ripple effects from these issues may alter the investment's financial attractiveness.

There can be other complications. Supply chain assets are often in the hands of joint-venture partners, affiliated companies or even competitors. For example, in one recent project a coal company was a joint venture partner and was also responsible for running the rail system and building the roads. Ownership issues like these can influence a project's success, and therefore must be factored into the equation at the evaluation stage.

Also key to the decision are the lopsided risks—those that occur between the project owner and its customers. A project that is considered high-risk for a supplier (for example, one that has no influence with the state railway company) may be low risk for the customer (who may have substantial influence with the state railway—particularly if the customer is state-owned or a monopoly). In this situation, many companies would transfer supply chain risk to the party best able to mitigate it. This is sensible, but it can also introduce challenges to the

project's fundamental parameters—such as customer and market strategies. Again, this can lead to market changes, with all of the associated challenges. We are familiar with one situation in which a company's policy was to sell products ex-gate. However, working in a remote area with long supply chains involving asset ownership (rail cars and port terminal) meant that its marketing strategy had to be adapted to export sales.

These issues reinforce the logical premise that all factors must be weighed at the outset of any project.

Identify Supply Chain Risks

Balancing the risks associated with remote locations is crucial in determining the overall viability of locations. In fact, because supply chain risks can represent the biggest threats in remote locations, these assessments are essential to the decision-making process. There are several areas that deserve particular attention:

Make sure government-run institutions can deliver. Before investing in a remote country, make certain that the government-run institution can deliver on any promise that it makes. For example, one company evaluated a location only to find that the chosen railway infrastructure was simply unable to cope with the needs of its project. Although the state railway promised to add capacity and build new lines, there was a definite risk that it would not happen. Recognizing the potential risk ahead of time allowed the foreign investor to negotiate safeguards into project agreements in order to cover itself in the event the railway failed to deliver.

Because supply chain risks can represent the biggest threats in remote locations, these assessments are essential to the decision-making process.

Evaluate the various transport routes. Determining transport routes requires some complex decision making, as each route will have its own risks. In one case, a company had to choose a route for the transport of final product from a central-Asian republic. The low-cost route was through Iran; the high-cost route was via Russia. Neighboring countries all represented medium-cost routes. Each choice had its own commercial and sovereign issues, and risk assessment proved exceptionally difficult. Following the transport-route assessment, however, the differences between the routes became clear—as was the final choice.

Weigh the choices between self-owned and leased supply chain services. Determining who will serve the various elements of your supply chain—and the associated risks—is a key decision in remote locations. This is especially true when it comes to major supply chain assets such as railways, pipelines, and port terminals, all of which can be susceptible to government intervention in terms of ownership, taxation, and operations.

Size up sovereign risks. Many risks, such as war, border closures, and tariff and duty increases, are sovereign and are unavoidable. However, identifying these risks early and assessing their potential impact on the supply chain can help mitigate them—at least in some cases. For example, a typical risk mitigation strategy is to identify a main preferred port terminal and a back-up in the event of transit restrictions. The transition from one terminal to the other should be smooth.

Other Key Considerations

When it comes to supply chains, significant assets sometimes lie outside project boundaries, costing millions or even billions of dollars. These can include pipelines, private railways, traction and rolling stock, terminals, and bulk storage at ports. Estimating this type of supply chain infrastructure requires rigorous, and thus early, assessment. Beware, however, for while determining exactly what causes supply chain costs might seem obvious in the beginning, there can be hidden ramifications.

Note, too, that in many cases supply chain factors relevant to an investment decision emerge as a costly surprise to project owners. By definition, such factors are not obvious. This reinforces the fact that, for major projects, supply chain factors are of great strategic importance. These factors must be identified and fully assessed alongside the usual factors—such as market opportunity and capital-expenditures estimates—during the project evaluation and feasibility stages. An appropriate supply chain study should include an understanding of the supply chain environment in the transit countries, the inbound supply chain, onsite operations (such as train and truck loading facilities), the outbound supply chain and enabling factors.

Because supply chain issues for major projects in remote locations are of enormous strategic importance, they should be germane to a project's justification. Early identification of supply chain risks, costs, and their inclusion in the overall viability assessment are critical and will go a long way toward supporting smooth execution of the project and return on investment.

Spend Analysis Delivers Big Benefits

APQC's research shows that organizations with spend analysis programs have more efficient procurement processes that cost less.

By Becky Partida, Knowledge Specialist-Supply Chain Management, APQC

With the ongoing focus on cost reduction, many organizations are devoting more time to spend management—the process by which they analyze their spending patterns to identify opportunities for long-term savings. One aspect of spend management that can have a profound effect on the supply chain is spend analysis, defined as the process of assessing the who, what, when, where, why, and how of an organization's expenditures. For its supply chain function, an organization should ask three questions as part of spend analysis:

- How much are we spending?
- With which suppliers?
- Are we getting what has been promised?

A spend analysis program can provide valuable visibility into an organization's procurement spending, which in turn allows the organization to consolidate both its suppliers and its spending.

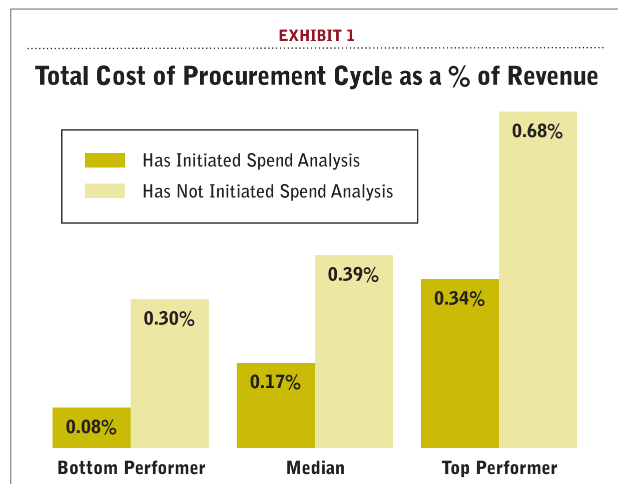
Many organizations have taken advantage of the improvements that spend analysis can generate in their supply chain operations. APQC's Open Standards Benchmarking in procurement indicates that nearly 70 percent of responding organizations have initiated spend analysis programs. APQC also sought to determine how organizations that engage in spend analysis compare to others in key areas. Our research indicates that organizations with spend analysis programs have more efficient procurement operations and more robust supplier relationships. The benefits obtained by organizations with spend analysis can be seen in the areas of cost effectiveness, cycle time, process efficiency, and staff productivity.

Lower Overall Cost

For organizations that have initiated spend analysis programs, the overall cost to procure materials and services is much lower (see Exhibit 1). At the median, an organization with a spend analysis program and $5 billion in revenue would spend $8,500,000 (0.17%) on procurement activities, whereas a similarly-sized organization without a spend analysis program might spend $19,500,000 (0.39%) on the same activities. This represents an additional $11 million in procurement cost for organizations that do not engage in spend analysis.

EXHIBIT 1

Total Cost of Procurement Cycle as a % of Revenue



The lower cost among organizations using spend analysis could be related to leaner procurement functions resulting from spend analysis programs. Because spend analysis provides visibility into an organization's procurement activities and expenditures, it allows the organization to identify areas for cost reduction and process improvement. This, in turn, could result in a lower overall cost to procure goods and services.

Faster Response from Suppliers

In addition to lower procurement costs, organizations with spend analysis programs have suppliers that provide more efficient order processing. This is most apparent in supplier lead times. At the median, organizations that conduct spend analysis have supplier lead times of six hours; by contrast, those without spend analysis programs have supplier lead times of 20 hours. This represents a difference of nearly two business days in the time it takes an organization to receive purchased goods after an order is submitted.

The difference in supplier lead time could be related to the closer supplier relationships enjoyed by organizations with spend analysis programs. They can use the visibility provided by spend analysis to weed out extraneous or underperforming suppliers. This would leave an organization with fewer suppliers, enabling it to work closely these suppliers to establish more efficient procurement processes.

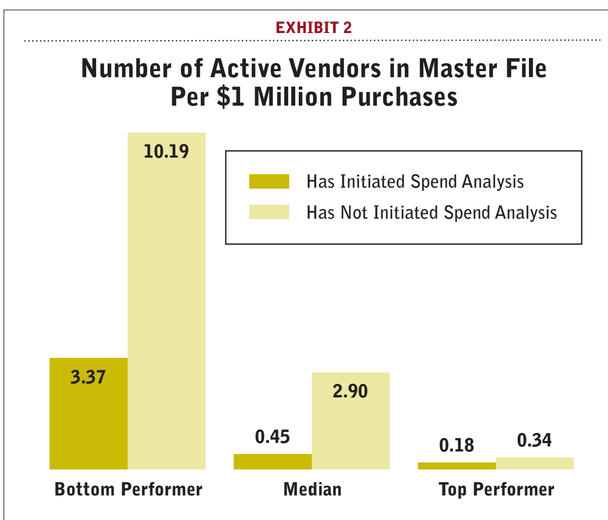
Streamlined Procurement Process

Organizations engaging in spend analysis also have more streamlined procurement functions. They need significantly fewer full-time equivalent (FTE) employees for their procurement processes per $1 billion in purchases than do organizations not engaged in spend analysis. At the median, organizations with spend analysis programs need 72 FTEs for the procurement process. Companies without such programs need 159.4 FTEs for the same activities. This represents a 121 percent difference in the number of FTEs needed to conduct its procurement activities.

Organizations that have initiated spend analysis also have fewer vendors in their master files per $1 million in purchases (Exhibit 2). At the median, they have 2.45 fewer vendors per $1 million in purchases than organizations without spend analysis programs. The difference is even more apparent among bottom-performing organizations. In this group, organizations without spend analysis programs have nearly seven more suppliers per $1 million in purchases than their counterparts with spend analysis.

The benefits obtained by organizations with spend analysis can be seen in the areas of cost effectiveness, cycle time, process efficiency, and staff productivity.

EXHIBIT 2



Although a specific cause for the difference in procurement function efficiency cannot be determined from the data, it could be another outcome of the cost and supplier consolidation resulting from spend analysis programs. The more streamlined procurement functions of those conducting spend analysis may have built deeper relationships with fewer key suppliers and need fewer employees to source and purchase materials.

More Efficient Procurement Staff

The FTEs of organizations conducting spend analysis tend to be more productive than those at organizations without spend analysis programs. This is most evident when looking at the total number of purchase orders processed per procurement FTE (Exhibit 3). At the median, companies conducting spend analysis process a staggering 1,559 more purchase orders per procurement FTE annually.

The stark difference in efficiency between the two groups again highlights the main benefit of spend analysis programs:

EXHIBIT 3

Total Number of Purchase Orders Processes Per Procurement FTE Annually

	Bottom Performer	Median	Top Performer
Has Initiated Spend Analysis	595	1,705	5,938
Has Not Initiated Spend Analysis	53	146	914

visibility into procurement processes and expenditures. Awareness of what is being spent with which vendors not only allows an organization to consolidate its spending and supplier base, but also gives it the ability to conduct purchasing at a faster rate.

Performance on Other Metrics

APQC's research found that organizations engaging in spend analysis also perform better on several other metrics, including:

- Total cost of the procurement cycle per purchase order.
- Systems cost of the process "order materials/services" per $100,000 in purchases.
- Percentage of purchase orders approved electronically.

Those operations with spend analysis programs also tend to adopt more mature procurement practices. On average, they make slightly more than 17 percent of their purchases from suppliers that participate in vendor-managed inventory (VMI) programs. On the other hand, organizations without spend analysis programs make about 9 percent of their purchases from VMI-type suppliers.

The increased use of suppliers with VMI programs could be indicative of the enhanced supplier relationships enabled by spend analysis programs. Once an organization determines which suppliers offer the best value, it can work with them to establish more evolved procurement processes (such as VMI programs) that benefit both the buyer and its suppliers.

The increased use of suppliers with VMI programs could be indicative of the enhanced supplier relationships enabled by spend analysis programs.

Building on Spend Analysis Programs

APQC's research indicates numerous areas in which organizations engaging in spend analysis perform better than their counterparts without spend analysis programs. The data from APQC's Open Standards Benchmarking in procurement shows that organizations with these programs perform better in the key areas of cost effectiveness, cycle time, process efficiency, and staff productivity. While the survey results do not provide direct causes for the performance differences, they give valuable insight into the more mature procurement processes and robust supplier relationships possessed by those that use spend analysis.

The key contribution that spend analysis can provide to an organization is information. Spend analysis gives an organization greater visibility into the amount of money it spends purchasing materials and services into the suppliers with which it spends the most money. Spend analysis also shows whether the value provided by suppliers meets expectations. This information can then be used to modify procurement processes and supplier lists in order to maximize the effectiveness of the organization's materials and services spend.

Once an organization has acted on the information gained from spend analysis, it can adopt other mature procurement practices such as supplier relationship management and supplier category management. This practices can enhance the mutual benefits of supplier relationships while enabling the organization to establish leaner, more efficient procurement functions.

About APQC: A member-based nonprofit founded in 1977, APQC is the leading resource for performance analytics, best practices, process improvement, and knowledge management. For more information, visit www.apqc.org or call 713-681-4020.

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