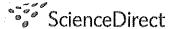


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HR Sourcing Decisions and Risk Management

Peter Cappelli

INTRODUCTION

One of the biggest business developments in recent years has been the outsourcing of many of the tasks in the human resources arena to vendors. Everything from benefits to candidate search to training to outplacement can be done by vendors. As more companies move to the global market, they have operations of their own in many parts of the world. More choices about where and how needed tasks can be performed put organizations and many HR executives in the role of making decisions about sourcing; where will our different tasks be performed?

Outsourcing in particular is not unique to the HR function, of course. But because the motivation for outsourcing is usually to cut labor costs, as labor is the majority of all operating costs, HR issues are involved in most every outsourcing call. Data reported by the Human Resources Outsourcing Association (HROA) suggests that outsourcing of HR tasks grew by over 20% points from 2007 to 2009 alone and now exists in about 90% of organizations.

Choices about sourcing are not new, either. Manufacturing firms have long had to decide in which of their locations to produce the various components of their final products or, more fundamentally, whether to use subcontractors to produce them. Better information technology has expanded the range of businesses where sourcing choices are possible, especially in white collar jobs. We could have the software done by our Indian office, the outbound calls initiated by our Philippine call center, and the policies drafted in the U.S. These sourcing choices effectively map out an organization's supply chain.

The promise of lower operating costs drives many sourcing decisions. But operating costs should not be the only or arguably even the most important factor behind these decisions. Risk management issues have to be considered as well. Those turn on whether the source of supply can truly meet the needs of the operation going forward. In the arguments below, we examine how to make sourcing decisions by keeping those risk management issues in mind.

Sourcing problems to avoid: To see the challenges behind these sourcing decisions, consider the following examples from the human resources function:

In the early 1990s, new vendors started the HR outsourcing boom by offering the potential for significant savings over performing tasks internally. Bank of America kicked off the outsourcing trend in 2000 in a partnership that transferred most all of its HR tasks for 144,000 employees to the new Exult venture, which at the time had 400 employees. Some of the initial outsourcing arrangements failed because the vendors underestimated the complexity of the tasks. The clients were left scrambling to fill the gap. The smaller Professional Employer Organizations (PEOs) created different problems when some owners absconded with their client's cash.

Smaller companies in particular frequently found that their own competencies in key areas such as information technology (IT) resided in a few key employees. When those individuals left, or worse, if "lift-outs" took away an entire team, the company was devastated.

During boom times in the late 1990s, for example, when a big, new customer contract was secured, the ability to handle the business was constrained by lack of capacity to hire fast enough. Customers were lost in the process.

At the business level, sourcing decisions that affect the operation's supply chain for its products or services can lead to even bigger problems, which make it easier to see the dangers:

Just when demand for the new iPad was hitting its peak, production bottlenecks in Chinese component providers kept Apple from meeting its sales targets.

In the U.S., we tend not to worry much about strikes anymore, but labor disputes in other countries disrupt production in complex supply chains. Canadian strikes in auto parts plants, for example, choke off operations in U.S. assembly plants.

The decision to outsource operations has been a key to the competitive advantage of companies like Dell Computer.

But consumer backlash in the U.S. from outsourcing call center operations to India forced them to backtrack on that decision.

In both contexts, problems with sourcing damaged the ability of the companies to achieve their overall objectives and, in some cases, even their survival. Sourcing challenges exist when organizations choose to handle tasks in-house as well, when those internal capabilities prove inadequate. When the Y2K software problems arose in 1999, for example, businesses with smaller IT functions found that they could not handle the task, and this threatened their overall business operations.

The practical question is how to make sourcing choices in an informed and effective manner given the type of risks noted above. Operating costs cannot be the only criterion for sourcing. Neither can the traditional advice to retain internally functions associated with your "core competency" and outsource the rest. When so many businesses use consulting firms to define their business strategies and search firms to pick their leaders, the idea of defining a priori what a "core" task is may prove impossible. Instead, we need to introduce thinking from risk management to inform our judgments about how to choose sources and how to hedge our bets against the risk of failure.

THE SOURCING CHALLENGE

Beyond cost, there are two main issues that should drive how we see sourcing choices. The first and perhaps easiest to see is reliability. Will the products get produced on time? Will they maintain a standard level of quality? In a production context, the failure to get components on time or that meet appropriate performance standards will shut down a manufacturing process. It is not unknown in large operations like assembly lines for any type of work stoppage to cost hundreds of thousands of dollars per minute. Even modest reliability issues can swamp any savings from lower per unit operating costs.

Not surprisingly, reliability usually costs more. To some extent that is because investments are required to ensure reliable operations: modern equipment is less likely to fail than old equipment, backup systems are needed to guard against breakdowns, etc. Quality, especially consistent quality, also requires investments in systems like TQM (total quality management) and monitoring technology. At the very least, reliable suppliers can charge more because of the value they provide, which raises the costs to their clients.

Many of the issues of reliability in business sourcing (i.e., which supplier should produce our components) relate to labor, and those that do should be the purview of human resources. The classic example is labor unrest. Strikes are now very rare in the U.S., but that is not the case in other countries. Talent shortages are also an issue, especially in developing countries where it can often be difficult to find skilled employees who know how to run the equipment of an operation. Employee retention challenges that threaten to bring the entire operation down are especially common in those contexts, but even in countries like the U.S., where talent supplies are generally plentiful, the loss of key employees can threaten the survival of associated opera-

tions. At a more prosaic level, it does not take much unexpected absenteeism at a call center to cripple customer service operations.

The other major concern is responsiveness, or the extent to which it is possible to adapt output or performance standards to changes in demand. When demand shoots up, can we meet it, or do we lose the business because we lack the capacity to adjust to the new requirements. When business strategies change or new products are introduced, can we get the new competencies from employees that are required to meet those new business demands? Or do we risk losing opportunities as a result?

One of the most important decisions affecting responsiveness is how organizations have decided to engage workers. Employment relationships are the most responsive arrangement for getting work done as employees can be directed to change activities and goals at a moment's notice. Independent contractors, in contrast, cannot be redirected when needs change without altering their contracts. While it is possible to change out contractors to bring in new skills, that process does take time and requires re-contracting, which raises new uncertainties.

There is typically a trade-off between cost and responsiveness as well, because it is easiest to sustain lower costs if volume and standards remain constant. When we outsource tasks, they are governed by contracts that tend to lock-in performance specifications and output levels. To get vendors to respond to changing demands from clients, we either have to renegotiate the contracts, a potentially time-consuming and expensive process, or we have to build flexibility into the original contracts. We pay a premium for contractual flexibility, and we have to know in advance what aspects of flexibility will be needed in order to do so.

In industries like manufacturing, location and transportation costs affect responsiveness as well. Suppliers who are farther away cannot respond as quickly because delivery takes more time. Capabilities, which relate especially to labor, affect responsiveness across the board: does a vendor have enough employees to meet our needs if demand rises, do its employees have the capabilities to deliver different services or products if our business changes?

The less control we have over the operation, the less reliable we sometimes think it will be. Because operations within our business are also under our direct control both legally and administratively, we tend to see them as more reliable than those that are outsourced, even when they are not: vendors who take on outsourced tasks do not necessarily see an individual client's concerns as paramount, especially where that client is a small part of their business; problems with infrastructure or political stability can make operations in other countries a greater failure risk. Similar arguments can be made about responsiveness. When we own an operation, we can shift priorities to make it respond quickly.

Yet reliability and responsiveness are not always better inside one's own organization, and again often the reason centers on labor issues. A small company, for example, may find that outsourcing its entire IT capability to a larger provider like IBM, where they effectively have unlimited backup capacity, may actually improve reliability, given that the loss of a few key workers could cripple their modest IT system. Similarly, vendors may help a client increase its responsiveness. Using temp services to meet a client's

seasonal demand (e.g., retail stores around the holidays) without having to build in more permanent capacity is a classic example.

A recent trend in supplier relationships has greatly increased concerns about reliability and responsiveness. The success of Japanese management practices in the 1980s at companies like Toyota caused many businesses to adopt their approach to managing suppliers, which was like a partnership model: work with the suppliers in long-term relationships to ensure their stability, plan changes in advance with them, and generally encourage them to invest in meeting the needs of the specific client. Jeffrey Liker and Thomas Choi describe how in many U.S. companies, the move has been in the other direction — toward more arms-length relationships, led most famously by General Motors and Wal-Mart: put suppliers in competition with each other to win bids based on price, expect current suppliers to reduce their prices with contract renewals, and drop them if they cannot.

In order to meet these price targets and win contracts, suppliers have to shave investments that do not immediately affect current operating costs and projected prices. Some of that skimping may affect reliability and responsiveness to changes in demand, as both can involve maintaining excess capacity. It is a mistake to think that concerns about reliability and responsiveness in vendors can be eliminated through performance contracts. Contracts by themselves are highly imperfect solutions. It can take years to resolve contract disputes through the court system, and by that time the client's business could be ruined. Similarly, if a contract appears likely to push a supplier into losses or worse bankruptcy, suppliers have little interest in complying with it.

What does all this have to do with human resources? First, the HR function makes its own sourcing decisions about what tasks to do in-house and what to outsource. As the array of sourcing options has increased — every HR task can now be outsourced — so has the complexity of making those decisions. Reliability and responsiveness problems with HR sourcing can potentially cripple the HR function. Business sourcing decisions — who should run our company's call centers, which contractor should make our components — have HR components, such as whether vendors have the workforce with the skill and stability that are central to reliability and responsiveness concerns. Problems with those choices can cripple the entire organization.

HR's role in business sourcing decisions is to advise about the risk that employee-related issues could cause for reliability and responsiveness in providers. Some of these risks, especially political risks of operating in different countries, are assessed, but those we consider here are not.

Beyond assessing reliability and responsiveness concerns along with costs, it is important to think through strategies that can reduce the risk of problems in the most cost-effective manner. Understanding those strategies is central to good management.

RISK MANAGEMENT STRATEGIES

Problems of reliability and responsiveness are not necessarily routine, but they can be anticipated. A standard distinction introduced by economist Frank Knight in 1921 is between uncertainty, which relates to events that are largely unknown

and extremely difficult to estimate, and risk, which relates to events that may be rare but that can be anticipated with some accuracy. Anticipating what customers will want to buy in the fashion business in ten years represents real uncertainty: customer preferences are extraordinarily difficult to forecast, they change often and unpredictably. We cannot even be sure what factors will drive those preferences, let alone what form they will ultimately take. Having one's factory burn down, in contrast, while a very unlikely event, is one for which the probability of occurring can be estimated with some accuracy. (The reason is that there are millions of factories, and enough of them have burned down to allow us to estimate the odds of a fire at any one.) We also know the attributes associated with fires. So instead of uncertainty here, we refer to the chance of one's factory burning down as risk, because we have some ability to anticipate and predict the chance of the problems occurring. As a result, risk can be managed.

Problems of reliability and responsiveness are much more like risk than uncertainty in that we can anticipate their boundaries (e.g., the ways in which a vendor could default on a contract). Because they occur often enough, we have some reasonable sense of the likelihood that they will happen in a given context. Therefore we think about managing those problems under the general heading of risk management. The problem we face in making sourcing decisions is to choose the arrangement that does the best job of minimizing both operating costs and the risks of reliability and responsiveness.

Operations research scholar Brian Tomlin categorizes possible solutions to sourcing problems as falling into two camps. The first are mitigation tactics that take place in advance of the problems. A human resource example of a mitigation tactic for a reliability problem associated with missing workers is maintaining a staff of "relief workers" who step in to replace absent workers in assembly lines or other lowerskilled jobs. The second camp is contingency tactics that go into place only when the problems occur. A standard contingency solution to the HR reliability problem of absent workers is to call in a temp agency to provide substitutes when workers are absent.

Mitigation and contingency strategies differ in important ways. Mitigation arguably handles the problems better but involves more upfront costs. One might think of mitigation tactics as being the equivalent of preventative medicine. Contingency has the reverse attributes, only being used if the problems arise, but in most contexts not dealing with them as well when they do occur. This is the equivalent of emergency room medicine.

If we carry the medicine analogy through, we see that sensible strategies for risk management rely on a mix of the two approaches depending on the problem. We might change our diet to reduce the risk of heart attacks — a mitigation strategy — even though it is a long-term and (to many) irritating solution. The reason we make that choice is because the damage of a heart attack is huge, and emergency-style treatment once the problem occurs is not very effective. On the other hand, we don't bother wearing football pads around the house, even though it might well prevent broken bones from falls, because the damage from broken bones for most people is not nearly as great as from incidents like heart attacks, and because emergency care after the fact works reasonably well. Preventing problems obviously is better than dealing with them after the fact, but often is not worth the cost. In short,

we use mitigation (in this case preventative medicine) for some risks and contingency (in this case emergency medicine) for others.

In human resources, we make similar risk management choices routinely, although we rarely think about them explicitly. Nor do we typically assess the options objectively. Consider, for example, the growing concern about succession management. In practice, this issue is really a concern about the reliability of our internal source: what if we lose our current chief financial officer (CFO)? Growing an internal replacement and having them serve as back-up — sitting on the bench ready to go in — is a common solution to that reliability concern. This is a mitigation strategy and is the equivalent of carrying inventory. Another alternative, a contingency strategy, is to outsource the problem when it pops up by retaining an executive search firm to find a replacement only when we lose our CFO.

It isn't enough just to have a strategy for managing sourcing risk. It is important to have the most effective strategy. One place where they calculate effective risk management strategies explicitly in human resources is in sports, where individual employees are both incredibly expensive and crucial to the "product" outcome. Consider, for example, U.S. football, where losing a quarterback, arguably the most central player, is a huge reliability problem as it threatens in a powerful way the overall team's performance.

The chance of losing a quarterback to injuries is not trivial but, again, is somewhat predictable. Teams always have backup quarterbacks who can step in when the starter is out of the game, an inventory-based mitigation strategy. But they almost never have a backup who is anywhere near as good as a starting quarterback. The reason is the costs: any quarterback good enough to be a starter will want to be a starter somewhere else, and it may not be possible to pay a good one enough to sit on a bench waiting for an opportunity. What most teams do, therefore, is have a backup only good enough to be a temporary replacement until the starter recovers - a mitigation strategy - or until another starter can be hired on the open market - a contingency strategy. For less expensive players who can fill multiple positions (e.g., linemen), the approach is different. Teams are more likely to hold some starter-level players in inventory for those positions, the mitigation strategy, as it costs less and is more likely to be needed. Contingency strategies in this context are relatively less effective because they take longer and do not necessarily cost less.

In the executive world, we see the notion of "bench strength" borrowed from the sports context above. Is it worth the cost, or indeed even possible, to pursue a mitigation strategy of holding talented executives in reserve who can step right in if a key executive leaves? Do they leave so frequently that we simply lose our investments in them, in which case we pursue the contingency strategy of having inexperienced backups step in with "acting" titles while we search on the outside while seeing whether the backup can actually do the job?

Assessing the value of risk management strategies: Understanding which risk management strategies to pursue begins with assessing the value of the strategy. That value is equivalent to the losses it prevents: what is the cost to the business if we lose that key executive, if a flu epidemic shuts down our call center, or if our benefits administration vendor

cannot meet demand when our healthcare agreements change?

Whatever those costs are, we adjust them by their probability of occurring: if we think it will cost us \$3 million if our key sales manager leaves, but the odds of that happening this year are one-in-three, then the value of a strategy that eliminates that risk is \$1 million this year. If the strategy only partially eliminates those costs, then we need another adjustment: If our strategy only saves half the losses, then the true value of that strategy is about \$500,000.

We assess that value against the costs of executing the risk management strategy. The costs of mitigation tactics are paid up front. For example, a mitigation strategy for managing the risk that our key strategy executive might leave could involve locking her in with stock options or employing an assistant sales manager who is ready to step into the manager role, someone who is overqualified — and overpaid — for their current role. Mitigation strategies are the equivalent of buying insurance. The process of deciding whether mitigation tactics are worthwhile is the same as deciding whether insurance is worth the cost.

The costs of contingency tactics, in contrast, are only incurred when they are used. A contingency solution to counter the risk that the key executive will leave might be to engage a strategy consulting firm to handle the tasks in the short-term. This strategy is likely to be less effective than the mitigation strategies above because the vendor will not know the company's context as well as an insider would. But the main costs are not incurred unless and until the risky event occurs. As with mitigation approaches, the test is whether the value of eliminating or at least reducing the risk is greater than the cost of the contingency strategy.

Despite the fact that contingency strategies tend to be much more expensive than mitigation strategies, they can still make sense, because the odds on them being needed are less: a \$200,000 cost of finding an outside replacement if a key sales manager leaves turns out to be more cost efficient than paying \$80,000 in stock options to hold the key sales manager if we only have a one-in-three chance of paying for the outside replacement. Holding an overqualified assistant manager as a backup may be the most expensive strategy because those associated costs have to be paid every year.

THE OPTIONS FOR RISK MINIMIZATION

The specifics for designing optimal risk management strategies get very complicated very quickly. However, practical solutions may not be as complicated, because we don't need optimal solutions to make considerable, in many cases remarkable, improvements in addressing problems like those above. One reason is that many and perhaps most organizations are not even aware of the risks posed by sourcing decisions. Simply recognizing the risks and using simple judgment calls can lead to significant improvements in organizational outcomes. Voltaire's adage that "The perfect should not be the enemy of the good" applies in contexts like these where we can improve decision making greatly while we wait for technical experts to design those perfect, optimal solutions.

Risk management issues are involved in every HR sourcing task, from the talent supply chain (recruiting and hiring to

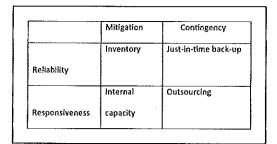


Figure 1 RISK MANAGEMENT TACTICS AND SOURCING PROBLEMS

training and development to managing outplacements and retirements) to administering benefits. There are a variety of options for managing reliability and responsiveness risks associated with the mitigation/contingency dichotomy above. They are described in Fig. 1:

Reliability and inventory responses: Reliability is arguably the most common risk issue, and inventory responses are the most common strategy for addressing them. Consider a situation where we have outsourced our benefits administration to a vendor. If for some reason the vendor was not able to process employee healthcare claims, there would be a great deal of trouble in the organization. An inventory response would be to maintain some internal capacity to handle, perhaps on a temporary basis, the workload if a vendor fails to deliver. Mitigation responses to risks like unexpected absenteeism include developing cross-functional employees and teambased systems where current employees could cover the work, on a temporary basis, for those who are absent. A mitigation strategy against social unrest in foreign-based operations might be to maintain multiple locations.

Arguably the most common sourcing risks in human resources relate to talent management issues, not having the right talent to get jobs done or losing that talent through retention problems. Typical mitigation strategies involve carrying inventory, such as a deep bench of talent or internal temps to fill shortfalls should they arise. The biggest reliability risk management challenge most HR departments are likely to have addressed is the possibility of a disease epidemic like Asian flu, where being able to maintain operations is the challenge. Mitigation strategies here include putting in place IT support systems in the homes of employees to allow them to work from home before illness strikes.

A final inventory response is to purchase insurance against the costs of a reliability problem. Performance contracts with vendors that proscribe payment for damages should performance standards not be met is a form of insurance. It may also be possible to purchase insurance in the market against some reliability risks, such as the death of a key executive in a small company.

A potential downside to these mitigation solutions, noted by operations research experts, is that some are the equivalent of supply "buffers" that may make it easier to ignore the underlying issues that cause reliability problems. If we have lots of capability for addressing turnover, for example, will that make us less interested in solving turnover problems?

Just-in-time back-up: A contingency solution to the benefits administration vendor problem above, where there are problems processing claims, might be to have another supplier arranged to fill in the gap (at a premium price, of course)

until either the problem is rectified or a new vendor can be found. Contingency strategies for absenteeism include using outside temps, paid only when they are needed, to fill in for absent workers.

For talent management shortfalls, a contingency strategy might be a just-in-time development and coaching program to get an internal candidate up to speed quickly in the job. The most common contingency strategy, though, is to use outside search to fill vacancies in the long run or consulting and contract firms to make up for shortfalls in capabilities, at least on a temporary basis. Evidence suggests, for example, that in the mid-2000s large U.S. companies engaged retained search firms to fill the majority of their vacancies above the vice-president level. Contingency solutions to the risk of epidemics include shifting work to other locations and requiring overtime work in those locations, using short-term vendors, etc.

Responsiveness and internal capacity: A typical responsiveness problem is the common situation where business demand spikes unexpectedly because of winning a contract or because of a sudden surge in demand associated with an unexpectedly successful product offering. Mitigation strategies here might include more overtime work in the short run and maintaining capabilities to hire and train new workers quickly. When business strategies change and the company needs new employee competencies to enter a new market, mitigation strategies might include having centers of excellence or internal consultants in larger organizations, which have competencies that can be redirected, at least in the short-run, to new and pressing demands. Other mitigation strategies are variations on the inventory theme — carrying capabilities that are not currently needed on the chance that it might be (e.g., maintaining a Russian office in case business there returns).

If mitigation approaches for reliability issues are the equivalent of inventory, then mitigation approaches for responsiveness concerns can be thought of as the equivalent of holding a financial option or more precisely a "real" option: we hold assets in reserve in case a business opportunity or need arises that we would not otherwise be able to accommodate.

Outsourcing: Contingency options for responsiveness problems like spikes in demand are similar to the just-in-time back-up strategy, but focus more on outsourcing the unexpected work to vendors. Developing new competencies for responsiveness issues might also include acquisitions or "lift outs" — hiring a team from outside — to get them into the organization when needed.

Senthil Veeraraghavan and Alan Scheller-Wolf describe a classic example of a contingency solution to responsiveness problems in a production context that minimizes costs. The lowest-cost providers tend to require long lead times for contracts, during which demand can change. So clients in industries like apparel hedge their bets on changing demand by placing only the minimum order that they are reasonably sure they can sell even in the worst scenarios with the lowest-cost provider. Then they engage other providers that are higher cost, but can take last minute orders to meet any demand above that minimum volume.

CHOOSING AMONG THE OPTIONS

Once we go through the thinking process above, we may decide that some risks are not worth the cost of offsetting

them, at least not fully. It would be almost impossible to address fully the reliability risk of a pandemic, for example, given that alternative sources of employees are likely to be affected by illness as well.

When we decide to manage the risk, some of the criteria for choosing among strategies have to do with our own internal tolerance for risk. How much risk we want to leave uncovered, for example, may be a policy choice. Whether we prefer for accounting purposes to pay for risk management as we go (i.e., mitigation strategies) or push possible costs into the future (i.e., contingent strategies) is another policy choice influenced by financial and accounting concerns. In such a context, mitigation strategies will represent fixed costs while contingent strategies are variable costs.

Brian Tomlin notes that for reliability problems, contingent strategies tend to be better when disruptions are less frequent even if they are longer in duration. One reason is because they don't have to be used very often, reducing expected costs. Contingent solutions can also be expanded based on the need to address longer-term problems, starting with a smaller solution and adding to it if the problem persists or grows. Mitigation strategies, on the other hand, work better when problems are more frequent and shorter because the investments in them, which tend to be cheaper out of pocket than contingent strategies, are used more frequently.

Crafting contracts: Contingency strategies make considerable use of vendors. Contracts with vendors and outsourcers that specify reliability standards in the form of performance contracts may be comforting, but remember that contracts have to be enforced, a costly and time-consuming process. And contracts do not prevent a vendor from simply going out of business.

Sang-Hyun Kim and colleagues outline the art and science of drafting performance-based contracts with vendors. Contracting against infrequent but catastrophic events, such as natural disasters, may not be reasonable or even possible as they may well take small vendors down with them. Vendors themselves may have no way to manage such risks, so it may be simpler to buy insurance against such events than to manage them through contracts. "Maintenance support packages", where vendors agree that equipment or services they provide will not fail, do not work well, they argue, when systems are already highly reliable, because vendors get no experience dealing with such problems. As a result, they are not good at heading them off when they occur.

When incentives and penalties for reliability are imposed in contracts, they should be expressed in terms of "average downtime per disruption" for events that vendors are unlikely to be able to control, such as acts of God, as these create incentives to get back online quickly. Standards based on "cumulative downtime" should be used for events that they can control, such as equipment failure, because they create incentives to stop the problems in the first place.

ADVISING ON BUSINESS SOURCING DECISIONS

Modern businesses often have complicated options for their supply chains that involve suppliers, joint venture partners, and operations in distant locations. The same processes outlined above can be used to advise the business on the human capital sourcing risks of those options.

Consider, for example, a business deciding whether to outsource its call center operations to a vendor in India. Assessing reliability risk should be central to the decision, and at least some of those risks turn on the stability of the workforce. What does the organizational culture and climate look like in this facility? Are there risks of strikes or simply mass walkouts? What is the turnover rate, and what ability does the facility have to hire and train new recruits? Questions like these get to the heart of the reliability risk at this vendor, and they are best assessed by human resource experts.

Common responsiveness risks typically center on the ability of a supplier to expand operations for the client should needs increase. Beyond simply assessing spare capacity, the ability to ramp up turns on human resource capacity: can they ramp up quickly, could they manage a bigger and more complex operation. Do they have a broad portfolio of competencies to handle different demands if the business broadens its approach, e.g., through cross-selling?

CONCLUSIONS

The broad topic of risk management has received more attention since the 2008 financial meltdown, where many companies failed to understand the financial risks to which they were exposed. The idea that there are risks besides financial ones that should be assessed and then managed is gradually gaining attention. In the area of human resources, most employers had at least a passing awareness that unions and strikes presented risks that threatened the business, but beyond that, the identification of risks associated with human resource issues and an understanding of how those risks could be mitigated has not been forthcoming.

Opportunities for outsourcing and the array of new options for getting work done — employees, temps — contractors — represent sourcing decisions, and each comes with its own risks. Those risks are rarely analyzed and even less typically managed. Understanding how they should be assessed, compared, and then mitigated requires a different set of competencies than one typically sees in human resources. But fortunately, they exist elsewhere, and the arguments above suggest how to apply them to this new context.



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SELECTED BIBLIOGRAPHY

For the seminal discussion of risk, uncertainty, and the distinctions between them, see Frank. H. Knight, Risk, Uncertainty, and Profit (Boston: Houghton Mifflin, 1921). For the distinction between mitigation and contingency strategies for managing risks, see Brian Tomlin, "On the Value of Mitigation and Contingency Strategies for Managing Supply Chain Disruption Risks", Management Science, 2006, 52(5), 639–657. A discussion of the use of low-cost but less responsive systems in combination with higher-cost, responsive arrangements, see Gad Allon and Jan A. Van Mieghem, "Global Dual Sourcing: Tailored Base-Surge Allocation to Near- and Offshore Production", Management Science, 2010, 56(1), 110–124.

A consideration of the issues involved in responding to disruptions after the fact is in Sang-Hyun Kim, Morris A. Cohen, Seguei Netessine, and Senthil Veeraraghavan, "Contracting for Infrequent Restoration and Recovery of MissionCritical Systems", Wharton School Working Paper, 2010. Senthil Veeraraghavan and Alan Scheller-Wolf, in "Now or Later: A Simple Policy for Effective Dual Sourcing in Capacitated Systems", *Operations Research*, 56(4), 850—864, discuss the option of maintaining backup capacity.

A general description of sourcing practices in human resources is provided in "Optimizing HR Delivery Channels", Human Resources Outsourcing Association (HROA), 2010. http://www.hroa.org/uploaded/documents/Optimizing-HR-Service%20delivery-channels-2010.pdf. Jeffrey K. Liker and Thomas Y. Choi outline the choices in supplier relationships in "Building Better Supplier Relationships", Harvard Business Review on Supply Chain Management (Boston, MA: Harvard Business School Press, 2006) A discussion of Dell's change in sourcing practices is "Dell Recalls Tech Support from India After Complaints", http://www.technewsworld.com/story/32248.html?wlc=1299269066.

Peter Cappelli is the George W. Taylor Professor of Management and director of the Center for human Resources at the Wharton School. His book, *Talent on Demand: Managing Talent in an Uncertain Age* (Harvard Business Press, 2008) discusses some of the risk-management challenges associated with talent-management issues (George W. Taylor Professor of Management, Director — Center for Human Resources, The Wharton School, University of Pennsylvania, Philadelphia, PA 19104-6370, United States. Tel.: +1 215 898 2722; e-mail: cappelli@wharton.upenn.edu).