

MIT CTL WHITE PAPER

ARE YOU PREPARED FOR THE SUPPLY CHAIN TALENT CRISIS?

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ABSTRACT:
Supply chain faces a severe shortage of talent at a time when the demands on the profession have never been greater. Globalization, market uncertainty, shifting demographic patterns, and the emergence of supply chain as a strategic function are some of the factors that are driving the skills shortfall. The industry can build an adequate supply of talent in a number of ways, but companies must be more proactive in their approach to recruiting, developing, and retaining the supply chain professionals they need to stay competitive.

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We have picked up an amazing amount of talent in the last 18 months. So many companies have cut back and seem to be doing it without regard to people's abilities.

Amid one of the deepest recessions ever to hit the United States and with the official unemployment rate approaching 10%, companies should have little difficulty retaining key employees. Why then are supply chain leaders citing talent recruitment and retention as one of their top concerns in 2010 and beyond?

We think the Great Recession is partly to blame. The scarcity of job openings caused by the downturn can, paradoxically, engender a false sense of security when it comes to keeping valued employees. Many individuals who show no outward inclination of wanting to change jobs are polishing their résumés and LinkedIn profiles in readiness for the economic turnaround. Moreover, survivors of the downturn have had to learn how to achieve more with less; these skills make them even more attractive to enterprises intent on luring talent with improved compensation packages and appealing career prospects.

In addition, shedding staff when the economic chips are down will come back to haunt some enterprises. Cutting too deeply not only hurts a company's reputation as an employer, but also benefits organizations that are savvy enough to recognize an opportunity to recruit premium talent. "We have picked up an amazing amount of talent in the last 18 months. So many companies have cut back and seem to be doing it without regard to people's abilities," says the CEO of a third-party logistics services provider (3PL).

Supply chain leaders are aware of these recessionary dynamics and fear an exodus of top talent over the next few quarters as the focus shifts to market growth.

In addition to these short-term effects, longer-term structural changes are driving the talent shortfall in supply chain. Demographic shifts, such as the loss of experienced personnel as the baby-boom generation retires, are changing workforce profiles. Globalization and increasing market volatility require specific types of business management skills.

Supply chain is also grappling with some unique demands. In addition to its role as a bridging function that interacts with other corporate disciplines, the profession is becoming more involved in strategic decision making. Moreover, its global connectivity in areas such as inventory positioning and supplier relationship management distinguishes supply chain from other departments. These challenges require a mix of capabilities that is hard to find, but companies need to fill these skills gaps in order to remain competitive. "The sort of things we were valuing and underlining as being important and what we were rewarding people for are different today compared to just five years ago," says a senior supply chain executive at a global apparel company.

The net result is a "talent tsunami" that could hit the industry in the next few years. What can firms do now to avoid such a crisis and lay the foundation for an efficient talent pipeline? MIT CTL is investigating the causes of the talent shortage crisis and possible solutions. This white paper, which is based on our preliminary research, summarizes the main trends and issues. These comprise three primary areas:

1. What Skills are in Demand?



Suddenly you are looking for people who are general business managers with high-order diplomacy and commercial awareness skills.

2. Where Can These Skills Be Found?
3. How Can Companies Develop and Retain Supply Chain Talent ?

1. WHAT SKILLS ARE IN DEMAND?

The mix of skills required to fulfill the supply chain management role varies with the type of company and sector involved, but we are seeing some common threads in this complex pattern.

Not Just a Numbers Game

Practitioners need a combination of "hard" and "soft" skills to effectively manage in an unpredictable commercial environment. "Supply chain analytical skills are necessary and important but not sufficient; sufficiency comes with these other skills," explains one senior supply chain executive. The "other" skills he refers to fall into the "soft" category, which includes thinking creatively and appreciating the big picture.

"Not getting bogged down in the numbers," is how another supply chain leader describes the blend of skills he looks for. Managers must be able to use not only the analytical tools at their disposal, but also the qualitative output, he explains. This is an important observation in a profession that relies heavily on quantitative analysis.

Furthermore, this distinction is reflected in the results of a survey of 350 supply chain managers and executives carried out in 2010 by the Gartner research firm. In the survey, 64% of the respondents valued problem solving as the most important skill for a recruit to have, while only 14% felt being skilled in supply chain technology was the high priority. Yet the study also identified a shortage of problem-solving skills and an excess of technology knowledge

The demand for higher-order problem solving also relates to the increasingly important strategic dimension of supply chain management. The leader of supply chain talent management programs at a well-known electronics manufacturer cites these capabilities as a "critical component" of the supply chain manager's skills set, particularly at the leadership level. "This is where we are going to get our competitive advantage in the future," he points out. "At the same time, it is not easy to nurture these qualities when individuals are steeped in day-to-day operational issues," he laments.

Navigate in a Fog

Extreme uncertainty has become the norm in many markets requiring supply chain professionals to be adept at "managing ambiguity," says a supply chain leader. In his opinion, "suddenly you are looking for people who are general business managers with high-order diplomacy and commercial awareness skills." The awareness might include an appreciation of the rigors of new product development and corporate finance.

An executive recruiter who specializes in finding professionals for senior supply chain positions believes that there is a demand for top-level managers who can "thrive in ambiguity" and not just manage under such conditions. When assessing job candidates, he looks for



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"learning agility," a phrase that "captures a person's ability to learn from past experiences and apply these lessons in new, ill-defined situations," he explains.

Multi-Level Communicator

A crucial element of the broader skills base is the ability to communicate horizontally and vertically within the organization, and across communities of trading partners. An example would be someone who can explain supply chain in simple terms to a marketer who does not know what it is, says the head of a global consumer goods supply chain.

The ability to communicate across the company should include top management. A senior supply chain executive explains that he can recruit supply chain graduates from a university, put them through the company's training programs, and turn these individuals into technically proficient supply chain managers. Whether he can put them in front of a divisional president to pitch an idea or participate in strategy sessions is another matter, he points out. "Finding folks with the sophistication to really tune into what the business leadership needs is tough," he says.

Nurturing symbiotic partnerships with suppliers is an important part of the communications component. "There is a lot to be said for the long-term relationships you build with your supply base," notes the leader of a corporate supply chain talent management program. That requires a deep technical grasp of the business involved as well as an aptitude for relationship building. These pressures have become more intense in recent years. Many suppliers went bust during the worst years of the recession, and the survivors are under pressure to take up the slack in an uncertain business environment.

A World Citizen

Another sought-after set of skills – and one that is becoming more important – is the ability to manage teams that are located in multiple countries. As companies and their supporting supply chains become more international, managers can no longer assume that all their reports will hail from the same country. In addition to the cultural and social differences involved, there is the issue of communicating across time zones. These problems can require some creative solutions. One supply chain leader sent non-American executives to visit the FedEx hub in Memphis so they could gain an appreciation of the sheer scale of operations in the United States.

But the global dimension not only is encompassing functional teams, it also is changing individual supply chain roles within companies. The head of supply chain at an international consumer goods firm offers this example. His company consolidated a number of European distribution centers into a single distribution center (DC) as part of a centralization strategy. Now the facility distributes product across Europe and oversees certain manufacturing operations in Asia and the United States. The DC manager has to deal with senior executives and other contacts across these regions, a very different working environment than previous. "How does he fit into this global pyramid?" asks the supply chain leader. It is possible that the DC's global sphere of influence might expand even further. "In which case, do I need to hire from the UN?" he asks rhetorically.

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The Background Puzzle

Given these multifaceted skills demands, recruiting individuals who fit the required profile can seem like finding a needle in a haystack. Perhaps this is one reason why companies have become more flexible in their approach to the types of individuals they are willing to hire for supply chain positions. This broad-mindedness is in keeping with supply chain's expanding portfolio of responsibilities and its wider reach within organizations.

Part of the problem is selecting individuals with the appropriate industry and academic backgrounds. Executives are struggling to find the best compromise between a solid grounding in supply chain and more general experience. One supply chain leader is amenable to individuals with a liberal arts background, believing that these studies give individuals the holistic perspective they need to become operations leaders.

Overall, companies "are more open to less depth for greater breadth," finds the supply chain recruitment specialist. Candidates with backgrounds in finance and IT are becoming more acceptable in the supply chain domain. "We are also seeing demand for transferable skills from outside the industry," he says. "In fact, if recruiters are only looking for industry insiders that can be a severe constraint."

DISCUSSION POINTS

- The profession involves much more than number crunching; but supply chains have never been more complex, and solid analytical skills are still extremely important. Where do we draw the line between "hard" and "soft" skills? Is there a natural division between folks who revel in more technical areas such as Six Sigma and "thinking" individuals who gravitate toward big picture issues?
- Is it better to trade some depth for more breadth? The profession still requires individuals with solid functional skills.
- How do individuals gain global management skills, particularly in companies where the corporate culture is rooted in the home market?

2. WHERE CAN THESE SKILLS BE FOUND?

There are a number of sources of supply chain professionals, including educational institutions, other companies, and recruiting firms. The rationale for deciding which ones to tap depends on a number of factors. One is the human resources (HR) philosophy of the organization; should the emphasis be on hiring inexperienced people and nurturing them, or on recruiting experienced folks from headhunters and other companies? The type of talent required shapes hiring strategies. If a company is looking for strategic and change management skills as opposed to more basic functional skills, then professional recruiters might be a more likely source.

It is beyond the scope of this paper to delve into the sources of talent for every specific skills set within supply chain. Our main concern is the talent crisis that the industry faces. In this context, there are two primary sources: graduate and undergraduate programs, and corporate



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programs for developing and retaining supply chain professionals. The latter is described in the next section.

Entering the Pipeline

At the base of the supply chain skills pipeline are the young recruits who will become future leaders.

Fortunately, the number of options for recruiting supply chain graduates and undergraduates has increased dramatically in recent years with the introduction of more programs. Still, more work needs to be done to align these programs with industry needs. For example, one senior supply chain executive suggests that there needs to be more emphasis on the end-to-end supply chain. "What I have seen is that a broad knowledge and skills set across the supply chain is really lacking at universities," he says.

One way to give students a wider supply chain perspective is to expose them to real-world operations. This can be done through internships, although companies have to make such opportunities available. Students at the undergraduate level already have considerable experience. Take, for example, the 2010 MIT Supply Chain Management (SCM) class. Thirty-three students from 12 countries were accepted for the program from more than 200 applicants. Thirty-five percent have an advanced degree, and the class average for industry experience is almost seven years.

Still, even these mature students benefit from hands-on course content; as part of the nine-month master's program, they partner with sponsoring companies to work on research projects. The Supply Chain Education Partners Program gives SCM students the opportunity to work with professionals on challenging supply chain problems, and gives companies access to the fresh insights and energy that experienced students bring to the table. The projects start in the fall and finish the following June.

Another suggestion to bring graduate education more in line with industry needs is to encourage technical and business students to work together on projects.

Low Profile, High Fence

An obstacle in the way of establishing a steady supply of recruits to graduate programs is a lack of awareness. Encouraging young people to enter supply chain programs is difficult when they have scant or no knowledge of the profession. A senior executive from a global services firm recounts meetings he had with high school counselors at a national trade organization event for these educators. As he explained the role of supply chain, they became interested, "especially when they realized that there is a broad spectrum of roles in supply chain." There is a similar lack of knowledge about supply chain as a career at the college level, he stresses. Supply chain's low profile can be particularly difficult to overcome in sectors where the function is overshadowed by dominant marketing and sales departments. The head of supply chain at a well-known consumer goods company recalls that when he goes to recruiting events, he asks prospective recruits whether they are familiar with his company's brand name.

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The answer is usually affirmative. Then he asks whether his company is at the top of their list for a job. "And when no one puts up their hand, I say, 'That's why I am here.'" Even though the company is in need of supply chain talent, its reputation as a cutting-edge marketing organization obscures its reliance on operations.

One of the problems is that supply chain is perceived as a purely technical role. "People often think it is only about moving boxes, something to do with transport and logistics; it almost gets narrowed down to the warehousing and delivery piece," says the supply chain executive.

Work is ongoing to raise the profile of the profession and attune educational programs to the industry's skills needs. The Supply Chain Talent Academic Initiative (SCTAI) is an international, not-for-profit consortium of industry, academia, and professional associations with a mission to increase the depth and breadth of the global supply chain talent pool by:

- Identifying industry competency requirements for supply chain talent, and providing forecasts of those requirements for university program planning.
- Assisting universities and other educational institutions in building programs to meet those requirements by providing material and other collateral.
- Marketing the supply chain profession as a career of choice.

SCTAI is involved in a number of initiatives in these areas. For example, it is engaged on a project to identify the responsibilities that come under the supply chain umbrella and to map the skills sets required to perform these jobs.

Emerging Issues

There appears to be much concern over the lack of supply chain training and education infrastructure in emerging economies, those countries that are top targets for business growth over the next decade. As the head of supply chain at one global company comments, even though his organization sources extensively in Asia, he finds it difficult to find and recruit local supply chain talent in the region.

That is not to say that there are no efforts to build a talent pipeline in these countries. Take, for example, a regional initiative in Latin America spearheaded by the Center for Latin-American Logistics Innovation (CLI).

CLI's flagship student program is the Graduate Certificate in Logistics and Supply Chain Management (GC-LOG), the most extensive non-formal education program of its kind in Latin America. Top-performing students from specialized or master-level programs in logistics, business management, and industrial engineering – or similar programs in universities that are a part of the CLI partner network – are eligible for the program.

Another CLI initiative in education is designed to "teach the teachers" by providing opportunities for academics from the region to improve teaching methods and program content in the supply chain field at their local universities.

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This is achieved through a series of English-language academic workshops that take place twice a year at various venues in the region.

DISCUSSION POINTS

- Should companies hire undergraduates and keep them for life or hire graduate school alumni?
- How can graduates be given the general background that companies are looking for and the functional skills they also need?
- Should companies devote time and resources to developing their own talent pools or put more emphasis on fishing in other pools?

3. HOW CAN COMPANIES DEVELOP AND RETAIN SUPPLY CHAIN TALENT?

Another source of supply chain talent is in-house training, educational and enrichment programs that provide a route to the profession and a way to acquire the skills needed to climb the leadership ladder. Such programs also help companies to retain talent by offering individuals opportunities to broaden their expertise and career potential.

While it is not possible to include a comprehensive description of these strategies in this paper, companies are using some of the following approaches.

Job Rotation

Rotating supply chain professionals through different departments and functions enriches their skills and gives them a broader perspective of the business. As the CEO of a midsize 3PL says, "I always tell my employees that it's not a rope ladder to the top, it's a spiral staircase."

A global services company calls its job rotation program a "talent exchange" and uses these placements to promote cross-functional development. In one program, employees – who include new recruits from universities as well as more experienced folks – complete a two-year rotation that involves six-month stints in different functions.

"You've got to understand the voice of the customer, sense what is driving them, and respond in a cost-effective and efficient way," notes the head of a supply chain talent management program. His company uses its rotation programs to impart these skills, for instance, by moving supply chain personnel into sales "to broaden their knowledge about what it really looks like when facing the customer directly."

A consumer goods company invests heavily in geographic rotations. Top managers are given wider experience by moving them internationally to different regions; the enterprise recently completed moves for 25 operations managers in an 18-month period.

Job rotations can highlight new aptitudes. For example, a 3PL account manager was given responsibility for accounts payable, even though she knew nothing about the role. The person

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proved very effective, and is now leading one of the organization's startup divisions. Such programs can involve individuals from other disciplines coming into supply chain. A food distribution company took one of its best mid-level finance managers and gave him an assignment to run one of its most complex warehouses. The individual completed the assignment successfully and was moved back to corporate in a more senior finance position. It is possible that he will return to supply chain at some point. Now the company is looking for other opportunities to reassign its brightest managers.

One company cautioned that rotation programs require careful planning. When a manager transfers to another function, the team left behind must have the skills to cope without that person.

Cross-Functional Connections

Another way to enrich the supply chain role and give individuals the opportunity to work creatively is to promote cross-functional projects. The Great Recession has actually helped in this sense by prompting companies to set up multidisciplinary teams to identify new ways to control costs and increase efficiency. There are many examples of operations and finance coming together over the last one or two years to raise the efficiency bar.

However, these practices need not be structured around specific project teams. One supply chain leader encourages his staff to work with other disciplines on an informal basis. For example, the head of transportation recently spent a short time at one of the company's product divisions attending business strategy meetings. The gatherings had little direct relevance to transportation, but the manager gained valuable insights into the business by being exposed to these meetings.

Continuing Education and Training

Providing opportunities for individuals to learn new skills and enhance their professional qualifications helps to keep them engaged and challenged. This is particularly important in supply chain, given the pace at which the profession is evolving.

Companies achieve these goals through the use of external resources, such as university executive education courses and internal programs. These courses can be designed to give support in specific functional areas or can be part of a more general cycle of education and training. In one company, development programs "tend to be constructed around the individual executive."

A global manufacturer of consumer electronics products provides broad-based courses for supply chain personnel through an internal university. "We take a group of issues or an issue that we want our people in supply chain to know about and put together half-day learning events," explains the company's talent management leader. Typical topics include functional issues such as order fulfillment and more general sessions on the company's financial and strategic objectives.

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Programs geared to specific skills sets, such as qualifying as a Six Sigma black belt, can serve the dual purpose of providing training opportunities as well as a way to improve business processes. In one company, "the best and brightest" are assigned for 18 to 36 months to a program that leads to black belt certification. "And for that time, they will just work on process improvement projects across the company," says the CEO of the enterprise.

But not every organization offers such comprehensive programs. "We do not have specific supply chain training programs," says the supply leader at a global consumer goods company. The company puts more emphasis on hiring the right skills rather than developing talent internally. However, he acknowledges that this shortcoming represents a gap in the company's talent management strategy, especially as the organization continues to develop its supply chain capabilities.

Plot a Career Path

It might seem obvious that individuals need a clear pathway to the top if they are to build a career as a supply chain professional, but in some companies such routes are not well defined. Perhaps the organization has such a strong focus on other professional areas such as engineering or marketing that careers in operations are accorded less attention. But such a ladder provides a framework for advancement, and gives supply chain the kind of status it needs to attract new talent.

There are signs that more companies are recognizing this necessity. "We see more formalized stepping stones to managing a supply chain career," points out a supply chain recruiter. The supply chain career tracks established by companies such as IBM and Intel provide valuable models for the industry. At one consumer electronics company the leader of supply chain talent management programs emphasizes that his company "has been very mindful and diligent about providing a career path to grow and develop." These routes might follow a particular activity. For example, "someone knows how to go from being the person who procures a part to managing that part for different products to managing the whole supply chain for different components."

DISCUSSION POINTS

- HR is a key player in recruiting and developing supply chain talent. Should companies have a dedicated HR team for supply chain, or rely on corporate HR resources? One senior executive maintains that "I could not operate without a dedicated HR person. I probably speak for an hour a day to my HR lead."
- Should firms hire leaders and teach them supply chain, or hire supply chain folks and teach them leadership?
- How can small-to-midsize enterprises that lack the resources of larger firms create and implement comprehensive talent management strategies? "How do you extract 70% out of these ideas so you can actually do it?" asks a supply chain VP.

TALENT PLATFORM

The Great Recession pushed the supply chain talent crisis on to the back burner as companies shifted their focus to survival. Now these issues are back on the agenda as leadership teams consider how they will navigate the road back to growth.

Efforts such as the Supply Chain Talent Academic Initiative offer encouragement that the profession is aware of the gravity of the situation, and a number of enlightened companies are implementing innovative strategies for recruiting, retaining, and developing supply chain talent.

Still, an enormous amount of work remains to be done. The market changes that have increased the demand for certain skills are likely to intensify over the next few years. In response, the supply chain profession needs to raise its profile and develop more effective channels for talent acquisition and development. The industry urgently needs strategies that provide a platform for long-term growth, rather than knee-jerk reactions to the latest economic cycle or commercial opportunity. ■

NEXT STEPS

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