SKILLS FOR THE FUTURE

SUPPLY CHAIN TRAINING FOR THE DECADES AHEAD

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SKILLS MATTER

The world is changing. Supply chain management is changing. Everywhere you look, there are new competitive paradigms, new technologies, and new business models. And to navigate this brave new world, organizations need skilled, capable people
– the best that they can find.

But skilled, capable people don't grow on trees. They can't be manufactured. They can, however, be developed and 'grown', through a combination of education, training in specific skills and competencies, and exposure to experiences which will stretch, test, and strengthen them.

Which skills and competencies, though? Which experiences? And who should take charge of the process – supply chain professionals themselves, or their employers?

Talking to experts, we explore these issues. If your career – or the capabilities of your supply chain organization – are close to your heart, then I strongly recommend making time to read this paper.

What factors make for a world-class, competitor-beating supply chain operation?

It's not difficult to come up with suggestions

Innovative technology, for one. Think shipment-level real-time GPS-based track-and-trace technology, for instance, often augmented with environmental condition monitoring. Fuel-efficient low-carbon freight-carrying systems. Robotic picking faces and 'smart' materials handling equipment. The Internet of Things. Automation-enhanced 'last mile' same-day delivery: think drones, automated storage bins, or pavement-trundling robots. And so on, and so on.

Advanced systems, for another. End-to-end track-and-trace capabilities, with full enterprise system visibility. Data links through to customers and suppliers. Online trading platforms, offering e-auctions and combinatorial optimisation. Data analytics. Blockchain. Predictive modelling. Advanced planning and scheduling. 'Guided' buying, and chatbots.

Strategic strength, for yet another: senior leaders with the experience, insight, and vision to steer the organization on not only the best path, but also the path that will increase the competitive distance between it and its competitors. So too with leadership strength. **An organization is more effective – far more effective – when it is led ably, by leaders who can communicate their vision, engender loyalty, and inspire the organization to strive for success.**

And of course, it is important to have smart, capable people at all levels of the organization. People who are confident, articulate, skilled, customer-focused, with all the competencies and abilities that any modern, forward-facing organization requires. People who are able to not only use the organization's systems and technology, but also use it to the full – delivering better outcomes for customers, and better outcomes for the business: better utilisation levels, lower costs, and so on.

The challenge in all this is obvious. To some extent, technology and systems can be bought 'off the shelf'. But everything else calls for skills. The skills to be able to identify the right technologies and systems to buy. The skills so as to be able to implement them within the business, utilise them to the full, and utilise them so as to deliver the expected outcomes – and perhaps more besides.

Clearly, then, skills matter. Technology is important; but identifying, implementing, and leveraging that technology matters more – and that calls for skills. So too with systems, of course. And so too with the skills required for leadership roles within the organization – skills in leadership and nurturing talent, but also skills in strategy formulation, and carrying out the appropriate analyses required to inform and guide those strategies. At all levels, skills matter: for organizations to prosper – far less become world-class – possessing the right skills is vital.
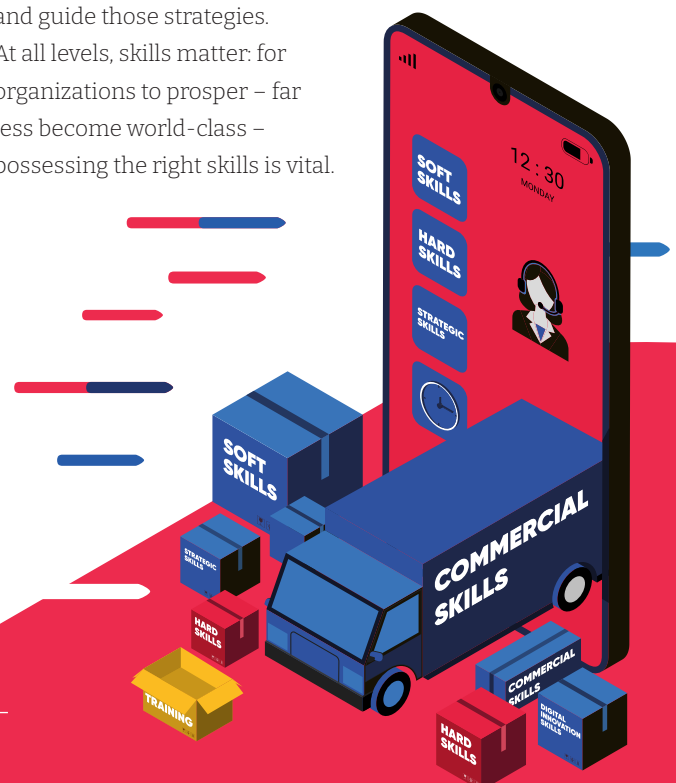
OVER THE HORIZON

But there's another dimension to this skills issue. Because it is also necessary – vital, even – to **possess forward-looking skills**. With technology and systems, for instance, organizations need to know not only the technology and systems that the business needs today, but also those that it will need in the future.

So too with leadership, strategy formulation, talent management, and the myriad more detailed skills that are required by middle management and below. It's easy to say today, for example, that data analytics is a vital skill for both organizations and individuals to possess. And by 'data analytics', or course, something more advanced than mere spreadsheet skills is usually meant. But who was saying this even five years ago? Rather fewer organizations and individuals than are saying it now. Visionaries at the cutting edge, maybe, but few beyond that.

And therein lies the difficulty. Famously, American writer HL Mencken once observed that he *"never made predictions – especially about the future."* It's easy to see why: the future is a strange place, and they do things differently there. Most of us, even as recently as 20 years ago, would have scored fairly poorly in trying to predict the world – and the business environment – of 2021. And even more poorly in terms of trying to predict 2031, or 2041, of course.

Ed Weenk, senior lecturer in supply chain management at Maastricht School of Management, engagingly tells a story about attending a conference on supply chain resilience in 2000. Many supply chain professionals, one suspects, could tell similar tales.

"There were 'break-out' sessions to discuss specific issues, and the conference organisers put up scenarios for us to discuss – and one scenario was a return to trade nationalism: trade wars, tariffs, quotas and all the rest of it," he recalls. *"We all laughed, saying, 'Well, that isn't going to happen!' But of course, it has – as have plenty of other things which would have been considered highly unlikely at the time."*

Nor are such stories new. Thomas Watson, then president of IBM, wrote in 1943 that he saw a world market for maybe five computers. Steve Ballmer, then the chief executive of Microsoft, saw in 2007 *"no chance"* of the newly-launched iPhone gaining any significant market share. Telephones were just a toy that would never catch on, wrote the president of Western Union, William Orton, in 1876, when inventor Alexander Graham Bell offered to sell him the patent.

The problem is that because something is difficult, that doesn't mean that it shouldn't be attempted. Those of us who run businesses or supply chains – or those of us who advise those people who run businesses or supply chains – must make predictions: it's our job. Because a business or supply chain that is ill-prepared for the future is a business or supply chain that may not have much of a future.

And so, despite the fact that supply chains have changed enormously over the past 20–25 years – and that many of us expect that the scale of change in the next 20–25 years will be even greater – those of us working in supply chain management have no choice: engaging with that future as it unfolds is mandatory.

For better or worse, we collectively need the skills to do so. But which skills?

In a fast-changing world, staying current is crucial. Yet after university or business school, many people invest remarkably little time in upgrading and renewing their skill sets. So it's no surprise that with an outdated understanding of contemporary best practice, they reach substandard decisions and conclusions.

Professor Omera Khan, Executive Strategic Advisor

SKILLS FOR THE EVOLVING ORGANIZATION

Ironically, the changes seen in recent years provide some helpful signposting. Brexit, Covid-19, trade tensions, the rise of re-shoring and near-shoring, the pace of technological development: one useful working assumption is that projecting forward the present rate of change is likely to be an unreliable guide to the future rate of change. Instead, assume that the pace of change could well become even faster, advises **Sean Culey**, an independent business transformation adviser and visiting fellow at Cranfield University's Cranfield School of Management.

"A lot of these new technologies are now maturing and about to cross the chasm into the mainstream and a lot of the tenets and assumptions that applied pre-Brexit and pre-pandemic have been challenged. But most supply chains are still focused on functions and activities, whereas as they need to be focused on outcomes," he notes.

"So going forward, it will be more important than ever to ask the right questions of the supply chain, and to understand who your customers are, and what they want. It's vital to have clarity and understanding in terms of what the desired outcomes are, and to be able to understand if those outcomes are the right ones from a customer perspective. Then we can assess whether the activities aid in the creation of that outcome – because increasingly, a lot of those outcomes are going to be taking place automatically."

And that increasing level of automation provides further useful signposting, adds **Daniel Stanton**, a former Caterpillar supply chain executive currently serving as chief executive and

chief learning officer at supply chain education specialist Mr Supply Chain.

To be sure, he points out, it makes the case for investing in cross-functional supply chain management skills, IT skills, and project management skills.

"There are skills that are fundamental: a solid understanding of working with, and implement, IT systems, for instance. And also solid skills in project management and project leadership and the associated change management skills. Plus, of course, the usual SCOR 'Plan, Source, Make, Deliver, Return, and Enable' skills: those are fundamental, and most organizations don't really have enough people with a deep appreciation of all of those, from a cross-functional perspective."

But an increasing amount of automation within supply chains also makes the case for preparing for an end to traditional career progression, he argues.
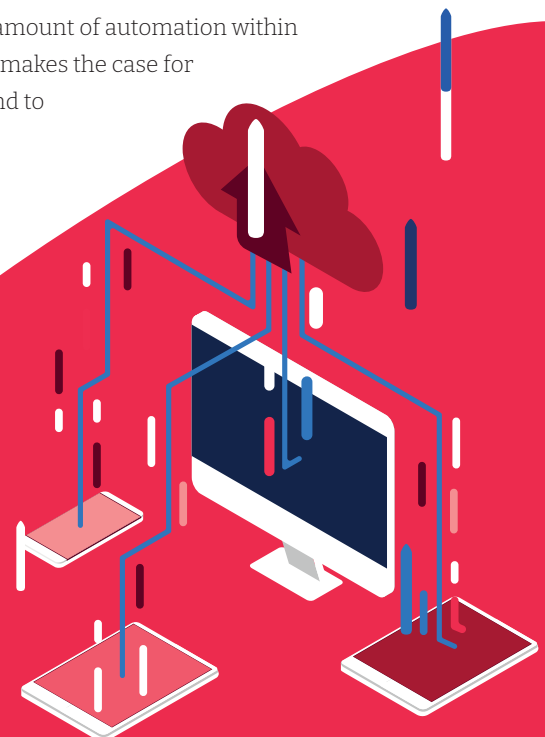
When it comes to skills, many people make the mistake of thinking that depth matters more than breadth – that it's better to be really expert in a particular field, rather knowledgeable in areas allied or related to that field. In my view, while that can sometimes be true, it's often narrow and restrictive.

How many design courses teach students to appreciate the supply chain implications of the products that they have designed? Or how many business schools have a design module in their supply chain programmes? All too often, silos trap us in a narrow, functional perspective.

Professor Omera Khan, Executive Strategic Advisor

"When I look at organizations, I see that people are still pretty linear: they view their careers as going up the ladder within the same broad function, rather than across the matrix, moving from one function to another. But going forward, a cross-functional perspective is going to be much more important. Because as things are automated – a task here, a task there, then this task, then that task, from this function, and from that function – you reach a point where there's a significant gain to be had by putting all those automated tasks back together in a different way, perhaps to achieve a different outcome. Traditional boundaries are blurring, and with that blurring the traditional barriers between functions start to erode: having a true cross-functional perspective increases people's career longevity within the organization."

Business transformation adviser **Culey** makes much the same point: with supply chain management no longer so focused on the management of labour-intensive activities, but on outcomes instead, traditional management – and therefore the importance of traditional management skills – has to some extent had its day, and loses a lot of relevance.

"The businesses that succeed best will be those that can flatten their organizations, get rid of their hierarchies, and empower their people," he argues. *"And that is one reason why the so-called digital FAANG companies (Facebook, Amazon, Apple, Netflix, and Google) have been so successful: whereas other, more traditional, businesses are struggling. While these*

industrial age companies are still using a hierarchical model that requires years of service to progress, these new companies are prepared to empower and reward their digital native employees from the start, allowing them the freedom to craft their own path and see a more direct relationship between their activities and the outcomes. They've recognized that the skills of the future will be very different from the skills of the past, and are responding accordingly."

Three skill areas in particular stand out as important, says **Martijn Lofvers**, the founder, chief executive and chief trendwatcher at Supply Chain Media, a Dutch publishing, networking, and consulting firm. Rather than advising supply chain professionals to think conventionally in terms of specific skill sets – data science, and so on – he urges the adoption of a more thematic approach, centred around three broad themes: strategic skills, commercial skills, and digital innovation skills.

"First, strategy: supply chain professionals need to be better at understanding strategy, and be able to step outside the supply chain 'bubble' and see the world as it is, not as the textbooks say it is. Think like a chess player, and see the patterns. They should do more scenario planning and business wargames, for instance – and be better in the execution of those scenarios."

"Secondly, businesses – and their supply chain professionals – need to be better at sensing changes in the market: trendwatching, in other words. Some changes are 'events': think Brexit, for instance. But many others are trends, and these can be predicted and extrapolated: sustainability, globalisation, digitalization, fair trade, and so on. It's possible to forecast where these trends are going, and understand the drivers underpinning them – and this too is a skill."

"And thirdly, innovation – especially digital innovation. It's quite surprising the extent to which this isn't taught in universities. Yet there are several kinds of innovation, and they all make a significant competitive difference – think of product innovation, process innovation, and service innovation. And even today, a lot of companies still fail with innovation deployment: change management, visualization and storytelling are key, supply chain professionals need to be better at implementing changes rapidly, in factory or in the warehouse, or in the IT systems underpinning the supply chain. Change management is a skill that can be learned, and so too are rapid development frameworks such as Scrum."

GROW YOUR SKILLS:

MARTIJN LOFVERS' READING LIST

Art of the Long View: Planning for the Future in an Uncertain World by **Peter Schwartz**

Seeing Around Corners: How to Spot Inflection Points in Business Before They Happen by **Rita McGrath**

Business War Games: How Large, Small, and New Companies Can Vastly Improve Their Strategies and Outmanoeuvre the Competition
by Benjamin Gilad PhD

THE PORTFOLIO CAREER

Roll it all together, and the picture is a complex one. The world is changing, but not in an especially predictable manner. Supply chain management is changing, too – and again, not in an especially predictable manner. Some skills are going to become more important, and some skills less important. Some skills will help individuals to navigate the uncertain waters ahead, while other skills might be less helpful. And the career-progression 'contracts' that individuals once had with their employer organizations – and arguably, with themselves – are no longer quite so certain, and no longer quite so fixed. Even within supply chain management itself, individuals are liable to find themselves moving between roles to an extent that would once have seemed remarkable.

The celebrated management thinker **Charles Handy**, among others, saw much of this 30 years ago. A series of books published in the late 1980s and 1990s saw Handy achieve guru status in many business schools, even though few readers quite believed how widespread the changes that Handy foresaw would be. Yet time has mostly proved him right, and today books such as The Empty Raincoat: Making Sense of the Future, The Age of Unreason, and Gods of Management: The Changing Work of Organizations rightly rank as business classics.

For supply chain professionals wanting to operationalise Handy's thinking within their own careers, the notion of the 'portfolio career' – a term coined by Handy in the 1980s, and a theme in many of his subsequent writings – is useful. Portfolio careers can be thought of in two ways: sequentially, and in parallel.

The sequential portfolio career has already been touched upon. Individuals may, within their career, carry out very different roles over time – as did Handy himself, of course, working as a marketing executive, a business school academic, and a writer and broadcaster. So, supply chain professionals might – as we have seen – move between multiple supply chain roles within the same organization, carrying out roles in (say) distribution, supply chain planning, procurement, and customer service.

Equally, supply chain professionals can also carry out different supply chain roles within different organizations over time, with a career embracing supply chain management within companies, consulting firms, and business schools – and perhaps culminating as a self-employed consultant, non-executive director, or part-time interim director. All are perfectly valid supply chain roles, requiring different skill sets and backgrounds.

Just as valid is a portfolio career that operates in parallel to employment within an organization. While parallel careers tend to be associated with younger individuals – twentysomethings and thirtysomethings holding one or more part-time jobs, while freelancing on the side – it only takes a glance at our own or other people's LinkedIn profiles to see parallel portfolio careers in action in respect of supply chain professionals of almost any age. Alongside their principal employment, it's far from uncommon to see individuals active in writing, lecturing, speaking, and serving as either paid or pro bono advisers or non-executive directors to charities and public bodies.

The importance of cross-fertilisation should never be underestimated—which is why so many organizations encourage their most senior executives to serve as non-executive directors in other organizations: the developmental opportunities are simply so great. And certainly, I have found straddling the twin worlds of academia and industry invaluable in my own career.

The bottom line: if you're not actively pursuing opportunities to broaden and enrich your perspective with exposure to new experiences, then you should be.

Professor Omera Khan, Executive Strategic Advisor

EDUCATION DEMOCRATISED

What to make of all this? What are the lessons – and action points – for supply chain professionals weighing all this up?

One key lesson is that supply chain professionals need to take greater ownership of their own careers, says **Radu Palamariu**, Singapore-based Asia-Pacific managing director of global executive search firm Alcott Global, global head of its supply chain and logistics practice, and host of the highly-regarded Leaders in Supply Chain podcast.

"Don't look to employers for long-term skills planning: most employers are thinking only 12 months or so out, rather than five years or even longer-term. Mostly, they react to skills shortages, instead of proactively planning to avoid them. Companies can also be quite poor at describing the skills that they're looking for: rather than asking for skills in change management, for instance, they'll often actually ask for specific experiences, and it's those experiences which infer that the individuals with those experiences must have acquired a set of change management skills."

The bottom line: individual supply chain professionals capable of looking ahead and planning their own career development are likely to do a better job of equipping themselves for what their future holds.

And doing so has never been easier, enthuses business transformation advisor Culey. Forget traditional educational routes to knowledge acquisition: new technologies have transformed the training paradigm.

"The Internet has also democratised education: people used to have to obtain permission from their superiors at work in order to study, and be granted the time and funding necessary to undertake it. But these days, education is available at low-cost over the Internet, meaning that people can affordably obtain the skills they want, in their own time."

Mr Supply Chain's Stanton agrees, seeing alternative education providers starting to 'squeeze out' universities – at least for executive education while in employment.

"Traditionally, a university course delivers a lot of knowledge, but then people would only utilise a relatively small subset of that knowledge in their jobs. But now, there's highly-granular, on-demand, self-guided learning available over the Internet in bite-sized nuggets: as people identify their skill needs, they can readily fill those needs – which has totally transformed executive education."

What's more, the availability of those bite-sized nuggets dovetails neatly with the notion of the 'T-shaped leader', argues Kees van der Vleuten, a former Royal Philips Electronics supply chain executive, and now managing director and chief operating officer of advisory firm KC MT Services.

"Going forward, it's going to be much more important to have knowledge of things other than simply retailing or supply chain management," he concludes. "The key thing is to learn about other things, as well: learn about IT, learn about finance, learn about data analytics, learn about sustainability. Leaders need to know about retailing and supply chain management, of course, but they also need to acquire skills in these other areas, as well. In short: learn, learn, learn."

Moreover, universities don't actually excel at teaching 'soft' skills, which can be critical differentiators of success. Leadership skills, change management skills, persuasion skills, influencing skills, and collaboration skills: these are often how textbook knowledge of 'hard' skills get translated into action, says **Simon Geale**, senior vice-president for client solutions at procurement consultants Proxima.

"As a profession, we've talked for a long time about supply chain professionals needing to adopt a broader range of soft skills – be they 'consultancy' skills, in terms of communicating with people, persuading and influencing them, and encouraging them to collaborate and communicate; or knowledge, giving them insight and understanding as to where challenges and opportunities lie."

Supply chain software veteran **Justin Sadler-Smith**, senior vice-president of sales for Northern Europe at e-procurement platform JAEGGER agrees: soft skills are important, and opportunities to learn them are few.

"It's the soft skills that matter: collaboration skills, change management skills, the ability to sell and influence, the ability to drive initiatives – these are what matter. Traditional education and professional certification bodies don't 'get it': they teach buyers how to negotiate, for instance, but don't teach them how to collaborate, or innovate."

And from his perspective as an executive search provider, **Alcott Global's Palamariu** offers the insight that 'hard' skills are merely the baseline: when it comes to achievement, it is soft skills that most often differentiate individuals' actual performance.

"Supply chain skills on their own don't do it; technology skills on their own don't do it: they're important, but they're underpinned by 'soft' skills," he emphasises. "I think of it as being like a pyramid: 'soft' skills as the base, and then layers of 'hard' skills on top."

In short, sums up **Martin Christopher**, emeritus professor of marketing and logistics at Cranfield School of Management, it's perhaps time to re-evaluate which skills really matter in terms of performance, and which skills simply provide the basic grounding necessary for a role in supply chain management.

"There's been too great a focus on 'left brain' skills: analysis, analytics, formulae and so on. We now need to invest in 'right brain' skills, such as understanding connectivity, 'soft' skills, thinking in terms of complex systems, and understanding that the whole is greater than the sum of the parts. Those skills may be difficult, and may call for both organizations and individuals to invest in acquiring them – but as the saying goes, if you think education is expensive, try ignorance."

SKILL DYNAMICS

Skill Dynamics was born in 2011, when an experienced group of international procurement leaders recognized a need for practical procurement and supply chain education produced by professionals with hands-on, real-world experience.

Under our original brands – Procurement Academy, and Supply Chain Academy – we've since trained over 300,000 professionals employed by over 500 blue-chip companies worldwide, leveraging the power of eLearning and the Internet. With Skill Dynamics' eLearning programmes, corporate teams have bridged skill gaps, boosted employee value, and increased revenue across the board.

Created by experts, and powered by cognitive science, our online training is role-based, practical and effective. The promise that we make to our corporate clients: the provision of highly-relevant training for their people, tailored for their role within the organisation, and the sector in which their business operates.

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