The Impact of Labor Shortage on Supply Chain Management
The Lead up to an Imminent Labor Shortage

An imminent labor shortage in key regions is set to shake up global supply chains. According to the latest research by Korn Ferry, businesses across the globe could be dealing with a labor shortage of 85.2 million skilled workers by 2030.¹ The dent in revenues is projected to be around $8.45 trillion or the combined equivalent of the GDPS of Germany and Japan.²

This does not bode well for major, labor-intensive supply chains worldwide. The U.S Bureau of Labor Statistics (BLS) reported that there are around 7.3 million job openings in October 2019 and only about 6.5 million people to fill them.³ Of this, the construction industry accounted for 311,000 jobs and manufacturing 477,000. Yet due to several overarching factors, these industries continue to remain understaffed.

Discussions on labor deficits have also set off a debate about driver shortages in the trucking industry. According to the American Trucking Association (ATA), the industry has faced a chronic driver shortfall for the past 15 years – a trend that may increase in severity as more drivers age and retire. ATA economists also contend that the over-the-road segment will be the biggest loser in this scenario. The organization stated that 2019 saw a shortage of roughly 70,000 truckers a number which could swell to 160,000 by 2028.⁴ The BLS, on the other hand has stated that, “There is thus no reason to think that, given sufficient time, driver supply should fail to respond to price signals in the standard way.”⁵ However, even their own projections reveal that employment in transportation is set to grow by 6% till 2026 – a situation where demand for employees might outstrip supply.

<table>
<thead>
<tr>
<th>CONSTRUCTION</th>
<th>MINING</th>
<th>TRANSPORTATION AND WAREHOUSING</th>
</tr>
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<tbody>
<tr>
<td>1.1%</td>
<td>0.6%</td>
<td>0.6%</td>
</tr>
<tr>
<td>807.5</td>
<td>44.6</td>
<td>322.3</td>
</tr>
</tbody>
</table>

Fig-1: Growth in employment opportunities across various sectors⁶

¹. Percentage change, projected 2018 - 2028 (Annual Change)
². Employment change, projected 2018 - 2028 (In Thousands)

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Fig-1: Growth in employment opportunities across various sectors
With the impending crisis, a global study estimates that the demand for workers **outweighs the supply by a ratio of 6:1**.

Due to this ongoing crisis and the resulting labor crunch, supply chain management (SCM) has been experiencing a major quality shortfall, and businesses like construction and transport are being crippled worldwide irrespective of geography. Delayed shipments, inferior product quality, customer service issues, and cash flow problems are just some of the inevitable outcomes of this acute labor shortage.

More than half (58%) of large organizations in **Canada** reported talent shortages this year.

**France** noted labor market shortages particularly in the IT and construction sectors.

Boston Consulting Group (BCG) claims that **Australia** will likely experience a severe labor shortage by 2030 - the country is expected to face a shortage of 2.3 million workers.

Fig 2: The Global Workforce Crisis: $10 Trillion at Risk®
Analyzing the Labor Shortage Crisis under the Lens of SCM

A radical generational shift is irrevocably changing the demographics of the workforce. Post-war “Baby Boomers” are rapidly retiring without enough Gen-Xers and Millennials to replace them. It is estimated that more than 60 million Baby Boomers are going to retire between now and 2025 leaving a wide chasm of technical and institutional knowledge. Reports suggest that 4 out of 5 manufacturers are concerned about the persistent labor shortage caused due to a retiring workforce.

Baby Boomers, the generation born between 1946 and 1964, will be retiring at the rate of 10,000 a day for the next 19 years

Many industries have also been beset with an image crisis. Newer generations of workers do not deem opportunities in industries such as construction and manufacturing attractive enough. Furthermore, the need for technical skills in these sectors has been on the rise. Companies like Samsung have sought to address this conundrum by changing young minds about the future of these industries. The electronics manufacturer recently opened their shop floor to host Manufacturing Day for young students. With 4.6 million jobs to fill over the next decade initiatives such as this are critical in closing the demand-supply gap.
Similar initiatives have taken hold across the pond as well. Kier Group, UK’s second largest construction company, has made “Modernise or Die” their new mission statement. One percent of their workforce has been earmarked as ambassadors to schools and colleges to leverage the growth and demand for new technical skills in an old industry.\textsuperscript{13}

The explosion of smart factories, wearables, robotics, and artificial intelligence (AI)-powered products warrants a huge pool of tech-savvy and technically proficient workforce. It has been gauged that approximately 60\% of the available supply chain jobs today require a skillset that only about 20\% of the workforce possesses.\textsuperscript{14}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig3.png}
\caption{The gulf between available supply chain jobs and qualified candidates\textsuperscript{15}}
\end{figure}
Common Methods to Combat Labor Shortage

Analyzing the issues behind labor shortages also gives us a chance to come up with possible scenarios that may help mitigate the damage caused by a labor shortage.

Very often, it pays to handpick promising talent from within the organization. Training to upskill the existing workforce to acquire specific skillsets will help match the ever-expanding list of complications and requirements of SCM. Moreover, it’s often more economical and efficient to utilize existing talent than hiring from an external pool of resources. This helps create long term value for the existing workforce and controls attrition to a significant degree.

Another way of realigning the existing workforce to maximize productivity would include adapting employees to alternate skills. Transference of skills within an organization often weeds out misplacement of employees. Employees may remain underutilized if they are assigned to a role that’s ill-suited to their abilities. Subsequently, it becomes imperative that select employees are encouraged to take on multiple roles or realigned to a different department. This is a definitive way for organizations to adapt their existing workforce in a much more efficient manner.

Although there are several measures that can be taken to maximize the potential of the existing workforce, at times adding extra manpower to the existing pool becomes unavoidable. And that is where the efficiency of the recruitment process comes into the picture. As discussed, recruiting a suitable candidate can often be a time and resource-intensive affair that minimizes the effectiveness of the entire procedure. Therefore, revamping the process might help make recruitment a suitable fall back during a serious labor crunch. Hiring applicants who meet ~80% (or closer to target) of the recruitment criteria and then nurturing them to grow into the role opens the organization to a wider pool of talent.
The key to close skills gaps in the workforce lies in partnering with external recruitment agencies or companies that can help in training and upskilling existing workers quickly and with minimal effort. For instance, Avetta can help companies ramp up their supplier training initiatives through a unique blend of solutions such as:

- **Avetta Marketplace** where suppliers can find discounted safety training packages to help them meet your insurance, safety and skill requirements.

- **eWebOQ** an integrated training platform that offers customized online modules and an for both internal workforce as well as contractual workers.

- **Worker Management** that provides a holistic perspective on your worker pool and ensures that you work only with trained workers with specific skillset.

![Fig-4: The increasing difficulty in hiring talents based on specific criteria](image-url)

<table>
<thead>
<tr>
<th>1 - Easy</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 - Difficult</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talent with both sets of competencies</td>
<td>0.89</td>
<td>3.85</td>
<td>10.68</td>
<td>57.86</td>
<td>0.30</td>
</tr>
<tr>
<td>Professional competencies (leadership skills, analytical thinking, innovation)</td>
<td>0.59</td>
<td>5.35</td>
<td>20.18</td>
<td>27.30</td>
<td>0.30</td>
</tr>
<tr>
<td>Technical / Operational competencies</td>
<td>4.45</td>
<td>19.29</td>
<td>35.91</td>
<td>10.9</td>
<td>0.59</td>
</tr>
</tbody>
</table>
Automation can also play a key role in combatting the adverse effects of labor shortage. Investing in automation tools, therefore, ensures that repetitive tasks such as picking/packaging are done without human intervention. This process not only eliminates the need for additional workers but also proves to be cost-effective in the longer run.

A study by the Information Services Group (ISG) revealed that robotic process automation in SCM resulted in 43% resource reduction for "order-to-cash" processes including billing, credit, collections, and pricing.

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**THE MANTRAS OF COUNTERING LABOR SHORTAGE**

- TRAIN
- ADAPT
- RECRUIT
- AUTOMATE

Often the option to replenish and enhance your workforce can be an immediate requirement due to a number of factors. From sudden requirement spikes to market volatility, a lot of external factors that are beyond manual control can cause the organization to seek surplus working hands at very short notice. As such, the preventive measures might not be able to inject your organization with the workforce boost that it requires in time. In these cases, seeking third party solutions can be immensely helpful.
LACK OF CAPACITY: AN EQUALLY INIMICAL ISSUE

This disruption in manpower has led to a lack of capacity in performing industrial tasks across the world. In certain countries around the world, the acute labor shortage has blended with adverse political conditions to aggravate the overall situation. As per a recent report by The Guardian the UK manufacturers are facing the biggest capacity shortage in 30 years. 81% manufacturers and 70% service sector firms report issues in finding suitable talent.

However, using third party resources with an established repository of highly trained and skilled capacity can help mitigate the damage.

A UK based building solutions company were able to leverage Avetta’s comprehensive supply chain risk management solutions to accelerate supplier onboarding to quickly make up the numbers that fulfilled the requirements in competency as well as capacity. Since using Avetta’s solutions, the firm has been able to successfully grow their supplier connections by 275%.

Fig-4: Cemex UK supplier connection ramp up

- 2012: 222
- 2013: 383
- 2014: 501
- 2015: 568
- 2016: 645
- 2017: 706
- 2018: 774
- 2019: 833
Avetta holds profound expertise in helping companies hire the right talent through thorough prequalification processes. Avetta performs a thorough check on contractors according to your requirements so that you can rest assured they your organization gets to work with the best in the industry.

Avetta, through its Connect platform helps companies meet the demands of an ever growing supply chain network. The platform bridges 450+ clients to more than 95,000 contractors & suppliers in over 100 countries around the world, and it represents what a technology platform can do to bring leading organizations one step closer to a network of qualified suppliers, vendors and contractors and in the process increase their chances of recruiting the right people.

 Outsourcing talent can have a direct impact on how a company manages productivity. A well-trained and technically proficient hirable workforce can scale labor, transport and infra requirements to effectively manage production spikes. Moreover, companies can circumvent the entire recruitment process with a sizeable pool of prequalified contractors that are readily available for hire. This allows them to save valuable time and boost their workforce efficiently.

**A leading U.S-based construction company was able to improve their resource search efficiency by 50% with instant access to a pool of prequalified contractors**

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CASE IN POINT

DECIEM manufactures and trades in beauty and cosmetic products. Headquartered in Toronto, Canada, the company has gone from strength to strength, and now contains 10 brands and over 50 products in the beauty segment. Since launching operations in 2013, DECIEM has exponentially grown its geographical presence across 15 markets globally.

However, as DECIEM spread their geographical footprint, they also faced the challenge of onboarding certified vendors and solutions providers across their offices, especially in the newly-ventured Southeast Asian markets.

DECIEM faced two challenges in contractor management. First, their success in the market meant that they needed to transition into a larger manufacturing site. As a result, they began to use more contractors to help with renovations and larger production orders. On a second front, they faced the task of onboarding contractors overseas, which was a unique challenge in and of itself. While expanding, the company found it increasingly difficult to identify and source contractors for their facilities. Additionally, with a large number of new contractors required across their global operations, contractors across centers, the volume of documentation required for prequalification and standardization of processes was stifling the in-house teams and causing errors on various levels. In short, DECIEM realized the need to outsource its contractor management function to save time and resources, while also reducing the scope of errors considerably.

DECIEM needed a specialized partner who could provide contractor management solutions and help it quickly ramp up its contractor selection and hiring process. In Avetta, DECIEM found exactly what they were looking for.
ROUNDING UP

While it’s true that labor shortage can be a major hindrance to efficient SCM, there is still much hope in the horizon. Identifying the core issues is half the battle won. Implementation of new practices and technologies are gaining ground in tackling an issue where human intervention may not always suffice. Automation, especially, is going to be crucial in providing sustainable resolutions for manpower shortage across industries. In the meantime, making intelligent and cogent choices in hiring the right talent, combined with the right training at the right time will serve as a much needed bridge in crossing the demand-supply chasm.

Through Avetta’s platform, Deciem were able to achieve the desired results which included 32% increase in contractor count within the first month of solution implementation, streamlined documentation and enhanced global outreach.

Avetta’s global reach made them an easy choice for DECIEM when it came to contractor management. With us growing in our global presence, Avetta’s thorough knowledge of the markets coupled with their exhaustive selection of contractors will certainly help our endeavors.

Angie Davis, Head of Environment, Health and Safety, DECIEM

Avetta’s simplicity of implementation of their solutions and the consequent speed of delivery were critical takeaways for DECIEM. Implementations of this nature are generally long-drawn, but with Avetta, we had a quick turnaround and that was great.

Angie Davis, Head of Environment, Health and Safety, DECIEM
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About Avetta

Avetta connects leading global organizations with more than 85,000 qualified suppliers, contractors, and vendors across 100+ countries. We support the sustainable growth of supply chains through our trusted contractor prequalification, supplier audits, insurance monitoring, robust analytics and more. With real results in helping companies reduce TRIR, our highly configurable solutions elevate safety and sustainability in workplaces around the world—helping workers get home to their families each night.

Let’s connect at avetta.com