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Assembling leading contributors and industry insiders, Logistics KnowledgeBase tackles the challenges confronting shippers today—from e-commerce fulfillment to tight capacity and supply chain disruption—and applies their considerable expertise and experience to provide insight and clarity.

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Solving the Three Toughest Challenges In E-commerce Fulfillment

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There's good news and bad news on the e-commerce front. The good news is that e-commerce is providing continued growth across a wide range of businesses, from retailers to manufacturers to distributors.

Three Supply Chain Challenges Limiting E-commerce Growth

The bad news is that significant supply chain challenges will prevent some organizations from capitalizing on this opportunity. These include:

- **Managing Capacity.** The steady upward trajectory of e-commerce is putting a strain on existing resources and forcing companies to consider significant new investments in the face of an uncertain future. At the same time, demand on a week-to-week basis can be volatile, stretching scarce human resources to the breaking point and reducing customer service. E-commerce fulfillment must be able to both flex with short-term fluctuations and scale with sustained growth. Few supply chains can meet those dual requirements.
- **Meeting Customer Expectations.** Today's e-commerce customers have higher expectations than those of even a few years ago and those expectations will only increase in the future. Two-day delivery will almost certainly be compressed to next-day or same-day delivery. Organizations struggling to meet today's requirements risk being left behind by competitors who are able to consistently meet these changing expectations.
- **Minimizing Complexity.** Inventory management, order processing and shipping all get more complex when e-commerce is introduced. In addition, integrating e-commerce fulfillment into traditional distribution operations to provide multi-channel distribution further adds to the complexity in support of omni-channel retail sales. Dealing with complexity can distract businesses from focusing on serving customers and achieving long-term objectives.

E-commerce is continuing to create opportunity for a range of businesses, but supply chain challenges can limit growth and compromise customer relationships.

Three Challenges, One Solution

Many organizations lack the combined experience, expertise and resources to efficiently manage the speed, volatility and complexity of e-commerce fulfillment. One organization that can is DHL Supply Chain.

With e-commerce experience stretching back to 2005, combined with an organizational commitment to operational excellence, DHL Supply Chain can provide flexible capacity through dedicated or shared-use networks designed to reduce costs and support fast delivery. Our optimization processes and smart use of emerging technologies simplifies e-commerce management, reduces order cycle times and shortens the time order clicks can be fulfilled for targeted delivery expectations. Finally, we're making the investments today in both the facilities and emerging technologies to meet the customer expectations of tomorrow.

The challenge of enabling e-commerce fulfillment capacity efficiently can seem overwhelming, but it is very achievable with a focused solution. For more information on DHL e-commerce fulfillment services, visit dhl.lookbookhq.com/ao_sector_retail

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logistics.dhl.com

Customs Broker vs. Freight Forwarder: Use a Customs Broker for Added Compliance

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Having a consistent point of contact that is familiar with your account, your product, and your business, can help you avoid a lot of headaches associated with importing.

Why do some businesses choose to work with one company to manage their freight forwarding and another for Customs brokerage? The answer is they think they will pay less.

Negotiating rates with two separate providers may seem a better strategy. However, hidden costs, delays, or confusion between the different parties can quickly wipe out any savings.

Sole Responsibility

Many freight forwarders rely on partnerships they've developed with other companies to provide Customs brokerage.

Choosing to work with two different companies who have very different roles to play–Customs brokerage and freight forwarding–can be problematic. For example, if miscommunication or operational coordination issues ensue, the shipment could be delayed leaving the container terminal and then incur demurrage fees, which makes it easy for the two companies to point the finger at one another instead of solving the problem.

When you're in a situation like that, knowing who to blame doesn't matter as much as knowing who's going to fix it. Working with a full-service Customs broker for your freight forwarding will increase accountability.

Consistent Point of Contact

Ever had to deal with a large company's customer service department in your personal life? It can be frustrating to be passed from one person to another without receiving a clear answer to your question.

Having a consistent point of contact that is familiar with your account, your product, and your business, can help you avoid a lot of headaches associated with importing. Having a rotating set of customer representatives is the scenario least likely to result in solid communication with your freight forwarding partner.

Avoid Variable Pricing

Choosing a freight forwarder or Customs broker based on price might not be the best strategy long-term. Creating a bidding war between two companies seems like a smart tactic, but you may end up with a quote that is far more optimistic than it is realistic.

The shipping industry hinges on fixed costs and strategic margins. It's rare to encounter a significant cost difference between two companies who are being honest about their pricing. There's a lot of potential for additional fees when you don't carefully review your quote. If you ask the right questions, you should be able to see through any unduly favorable pricing.

Apples to Apples

When evaluating the performance of your freight forwarding partner, you'll want to compare apples to apples.

If you're working with multiple companies, it can be challenging to identify weaknesses unless you have a pre-determined benchmark. Working with a single company means you can manage performance against a standard procedure, not to mention the predictability of the experience.

Lower cost options may come with less service than the slightly higher priced option, and you may ultimately lose money on an attractively priced quote.

Using one qualified company for Customs brokerage and freight forwarding reduces the logistical work on the customer's end, while also making it easier to achieve Customs compliance and an optimal experience from pick-up to delivery.

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The Game Has Changed – Time for a New Playbook

John Richardson
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John Richardson is Vice President of Supply Chain Analytics for Transportation Insight, an Enterprise Logistics Provider engineering technology-enabled, data-driven supply chain solutions that achieve significant cost savings, reduce cycle times and improve customer satisfaction rates. He has spent 20 years employing advanced analysis techniques to help companies across a broad range of industries optimize network design and improve business performance.

Evolving e-commerce service expectations force traditional retailers, manufacturers and distributors to rethink their strategies for serving clients. A two-day delivery normal–at little or no cost to the end consumer–pressures every supply chain stage, from raw material components to the finished product traveling the last yard to the customer's hands.

Retailers competing to deliver on service levels embodied by an Amazon experience expect their business partners to accelerate the flow of order to production. Manufacturers respond by adjusting practices to meet the needs of retail clients and seize growth opportunities that exist in directly serving end consumers. Direct fulfillment capabilities need retooling to deliver with excellence while maintaining profitability targets. In an age when consumer demand dictates the need for multiple distribution channels, is your supply chain equipped with the expertise and the flexibility necessary to not only survive but thrive?

While demands for service and speed of delivery propel organizations trying to ride the e-commerce wave, other challenging currents exist.

- E-commerce shipment capacity consumption influences an already tight capacity marketplace.
- International trade uncertainty around tariffs, trade agreements and security prompts global enterprises to explore nearshoring or onshoring.
- Trending technologies hold promise for the future of data visibility, but validating information accuracy and gleaning actionable intelligence impedes efficient network design.

In an ever-changing business environment, the days of maintaining a static supply chain strategy are over. According to the 2019 *Third-Party Logistics Study*, about 51 percent of responding shippers recognized the need to implement new supply chain approaches. Yet, 42 percent of those shippers have not made significant changes to improve operational agility within the past four years. Without a robust technology platform complemented by engineering expertise and deep logistics industry knowledge, many organizations are ill equipped to determine the best transportation strategy to serve the demands of their particular customer base.

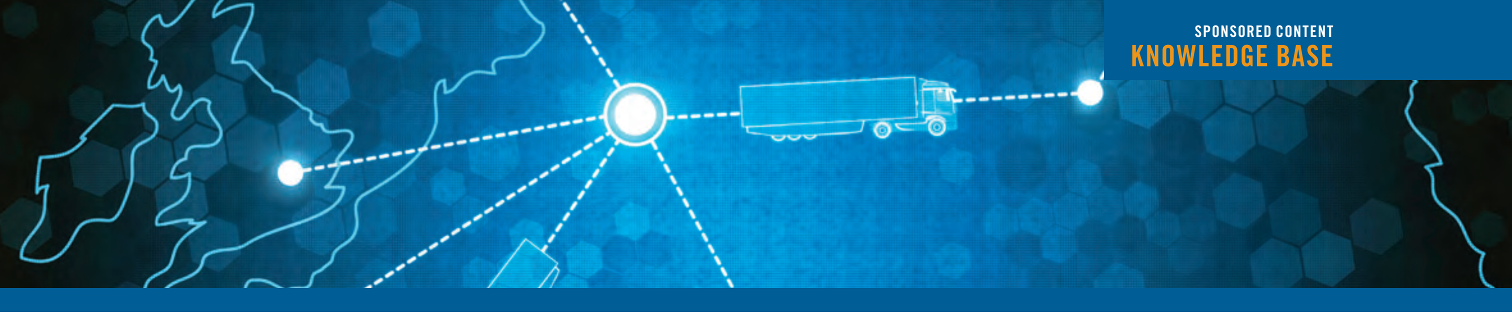
Delivering an optimal customer experience requires a new perspective on supply chain design that considers product intricacies, unique consumer traits and enterprise goals. Shippers need a playbook that charts a strategy for obtaining better operational understanding while improving processes that most directly affect customer satisfaction. Key components to a winning game plan include:

- Collecting, managing and analyzing supply chain data as the foundation of descriptive and predictive analytics that underpin AI-driven prescriptive transportation modeling around alternative alignments;
- Utilizing dynamic routing to determine least cost configuration for getting shipments to the customer;
- Recognizing total landed cost for each SKU offering and customer to determine item-level profitability and identify supply chain levers that can generate more return;
- Coordinating a diversified transportation strategy that combines all delivery options, utilizing the strength of each mode;
- Engineering an omni-channel environment that shortens the lead-time to customers through a central view of inventory, increased data accuracy, efficient offering and optimal inventory placement.

Flexibility in offerings and speed to deployment are key, but companies cannot sacrifice visibility of shipment analytics. Without capital outlay for best-in-class transportation management and data analysis technology, organizations lack supply chain tools integral to effectively measure service and profitability. Managing all supply chain processes within the single operating environment of a trusted adviser integrates analytics-based optimization with a qualitative human element that brings:

- Cross-disciplined experience;
- Entrenched relationships essential to effective multi-modal transportation execution;
- Lean-based mindset at the foundation of continuous process improvement.

With that partner in play, business enterprises gain access to the benefits of a new playbook and the promise of constant strategy calibration required to keep pace in the race to serve every client with excellence.



Using Collaborative Technology To Tackle the Carrier Capacity Crisis

Ed Moran
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Collaborative transportation solutions help both shippers and carriers automate manual processes and gain crucial supply chain visibility.

Technology is the great enabler of collaboration. When it comes to domestic transportation, efficiency-enhancing collaborative technologies allow everyone–the shipper, their carriers and their customers–to thrive, even in a challenging capacity environment. By automating processes relating to transportation, these solutions free up capacity and help keep drivers on the road by minimizing detention and dwell time, and allow drivers to stay in line with Hours of Service regulations.

Technologies designed to alleviate challenges and uncover capacity

Collaborative technologies can be used to reveal backhaul opportunities in the online or digital spot market and allow carriers to select and schedule their own appointments. Giving carriers the ability to plan more efficiently and in advance helps them potentially avoid deadhead miles by finding and picking up another load. Full truckload shippers leveraging Big Data from transportation management platforms with a vast connected network across a global shipper-carrier community can now match their demand with available carrier capacity to significantly reduce expensive and inefficient deadhead runs. By shippers communicating directly with the asset owners, loads get filled more efficiently leading to fewer empty miles, which in turn reduces carrier operating costs and may then be reflected in more competitive rates.

There are also technologies that have been specifically created for transportation procurement to uncover hidden carrier capacity. These proactive sourcing technologies connect shippers to carriers that serve specific lanes or modes for industries that may call for specialized equipment. By running your own bids in a completely neutral fashion, digital sourcing technologies allow shippers to negotiate directly with their pool of incumbent and new carriers while also maintaining direct relationships with those carriers. Relationship-building can go a long way in times of tight capacity.

Enabling carriers to plan resources efficiently

Carrier idle time, which includes the on-site time that drivers are waiting to get loaded because of an unscheduled arrival or an unprepared dock, has also been a contributor to the capacity crunch. Every hour a carrier spends waiting to pick up or deliver a load is one less hour that driver can spend on the road.

One solution that benefits both shippers and carriers alike is dynamic time slot management or dock scheduling. These solutions are created specifically to handle complex loading logic and can help shippers share realistic schedules with their carriers. When carriers are able to plan more precise time commitments at a shipper's premises and shippers honor those time commitments, carrier idle times can be reduced significantly. It also keeps both shippers and carriers focused on loading/unloading times, with the goal being to let drivers head out as quickly as possible.

Make collaboration work for you

Manufacturers, suppliers, and retailers of all sizes are still finding it increasingly difficult to secure carrier capacity. Collaborative transportation solutions can strengthen logistics operations by helping both shippers and carriers automate manual processes and gain crucial visibility. Collaborative technologies do more than allow shippers to work more closely with their carriers to reduce costs and save drivers time–they are also crucial in combating the inefficiencies that have contributed to the current capacity situation.

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Leveraging Logistics Communities To Find Capacity in a Tight Market

Dan Clark
Founder and
President

Companies that leverage logistics communities will be able to secure much needed capacity in a tight market.

Finding truckload capacity is on everyone's minds as the capacity crunch and driver shortage worsens. In fact, the Kuebix team surveyed over 550 logistics professionals in December 2018 to find out what they believed would be the biggest challenge for supply chains in 2019 and the capacity crunch/ driver shortage easily scored the highest with 44% of the total votes.

There are a number of factors causing the capacity crunch and driver shortage. A combination of fewer drivers and more deliveries is putting strain on a system which hasn't seen major changes in 50 years. According to the Bureau of Labor Statistics, the average age of a truck driver is 55, which means many drivers are quickly approaching retirement age. Unfortunately, millennials aren't filling driver positions vacated by retiring Baby Boomers as quickly as retirements occur despite competitive pay.

The growth in popularity of e-commerce shopping has also added to the capacity crunch. There has been a societal shift where consumers have become used to extremely fast and inexpensive shipping. This trend is known as the "Amazon Effect," referring to the overwhelming popularity of Amazon Prime's free, 2-day shipping.

Today's consumers want to have complete visibility to their orders, get deliveries in record time, and pay less for shipping. Companies need to keep customer expectations front and center in their business plans, an expensive and difficult proposition for supply chains. All of these trends combine to result in fewer trucks on the road when more capacity is needed.

Fortunately, there is capacity available out there for those who know where to find it. Companies that leverage logistics communities will be able to secure much needed capacity in a tight market. The key is tapping into a vast logistics network with the ability to match freight with available capacity.

Consider Uber or Lyft's business model. These apps connect people who have cars and are willing to give rides to people who need rides. Technology powered logistics communities can work in much the same way by connecting freight shippers to carriers, brokers and fleets with available capacity. Now, instead of aimlessly calling or emailing carriers on a contact list, shippers have a streamlined and efficient method to find trucks to move their freight.

The easiest way to integrate finding truck capacity with day-to-day logistics operations is to leverage a transportation management system (TMS) with a built-in logistics community. A TMS with a broad user base and a vast network of truckload assets can easily connect shippers with available capacity from the same platform they use to rate, book and track negotiated carrier rates.

When opportunities to collaborate are leveraged by using a TMS' logistics community, everyone wins. Carriers, brokers and fleets fill trailers that would have otherwise ridden empty and shippers speed up operations, save money, and provide better service to their customers.

The supply chain industry faces many hurdles in 2019, but companies that plan ahead and leverage online logistics communities powered by a TMS will be well-positioned to meet their customers' expectations.

Mobile Warehousing & Storage: The Warehouse Manager's Secret Weapon

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Low-cost, well-maintained trailers can readily supply needed warehouse flex space to meet the rising demands in the evolving supply chain.

The supply chain as we know it is undergoing massive and constant change. This change can cause uncertainty, but it also creates an opportunity for new ideas and unlikely partnerships to solve challenges we collectively face within the industry.

One of the biggest challenges facing supply chain managers is the ability to effectively use warehouse space. E-commerce delivery expectations, warehouse availability/locale and preparation for supply chain disruptions make effectively managing warehouse space efficiency an arduous task.

Over the past several years, the Amazon-effect of B2C commerce and now B2B commerce is putting tremendous pressure on reducing delivery latency. Two-day delivery is now same-day delivery, and the pressure to reduce that timeframe continues. The consumer demand for rapid delivery requires retailers and distributors to change the way they think about logistics real estate. To meet the expected delivery timeframes, a more dispersed inventory, including a wider selection of products and availability, is required. This means warehouse space across a wider geographical network is a requirement to fulfillment success.

Warehouse space constraints have become a hurdle for the supply chain and management of goods and inventory in relation to delivery demands. Selecting the right property in the right location can be critical to an operation. Investments, whether through capital expenditure or term lease commitments, are a costly endeavor when the landscape is changing so rapidly. To complicate matters, warehousing is moving from low-cost outlying areas closer to the end-user to reduce delivery costs and timing for the last-mile. The lack of space can significantly impact a retailer's supply chain performance and overall viability.

In addition to managing warehouse space cost effectively, a supply chain manager needs to prepare for seasonal flex of inventory, weather disruptions, pricing volatility and the growing reverse logistics of inventory. Managing these risks within the supply chain environment considering warehouse space is constrained is a near impossible task. Having a contingency plan for potential disruptions ensures the right goods are delivered at the right place at the right time.

Low-cost, well-maintained trailers can readily supply needed warehouse flex space to meet the rising demands in the evolving supply chain. They can serve as temporary storage, assisting in staging inventory from warehouse space to more densely populated urban areas. It's a warehouse on wheels allowing flexibility to meet changing demands in the supply chain. To improve warehouse utilization and efficiency, dry van trailers can be a cost-effective solution, allowing manufacturers, retailers and distributors to rapidly (in 24 to 48 hours) flex up their warehouse space on a month-to-month basis and at costs savings of 50% over traditional warehouse space. Securely storing trailers off-site provides another option to stage and control overstock goods or packaging materials.

The Unusual Suspect: Supply Chain's Role in Recent FDA Recalls

Brad Hollister
CEO
SwanLeap

2018 brought its share of FDA recalls issued as desperate attempts to prevent further danger – danger technology should be able to pinpoint and prevent. Between the deadly E. coli outbreak from romaine lettuce to the massive salmonella outbreak linked to eggs, the FDA had their hands full investigating these large-scale public emergencies.

> *How the TMS should evolve to increase end-to-end transparency and centralize your supply chain's data*

The Farmers Are Merely the Scapegoat

Let's state the obvious. The issue of food contamination is not a farmer problem, though they certainly have felt the brunt of the blame for the outbreaks. According to *The Republic* (Arizona), Bradley Sullivan (attorney specializing in Agricultural Contamination cases) said, "Everybody wants to know where it came from. I feel bad for Harrison Farms, because they are going to get blamed for the whole thing." But here's a question: how do you produce bad eggs or grow bad lettuce?

Is this really an agricultural problem or supply chain problem? As a society we have moved beyond using static information to make decisions related to the health and well being of humanity. Yet supply chains, which deliver critical items, are still being driven by a table-based, business rule infrastructure to make decisions without taking into account things like driver quality, previous loads carried, when the truck was last washed, or where the truck went after the pick up at the farms.

Is the problem more likely that the farmers grew bad produce or that the lettuce was floor loaded onto a trailer contaminated with bacteria? This wasn't a produce problem, this was a shipping problem caused by a lack of adequate transportation management.

The Real Cause Is Inadequate TMS Technology

To understand the problem we must understand why the antiquated supply chain industry is to blame. Since its inception, the job of a TMS was to assign a carrier from a pre-decided table and close out the order at the end of the lifecycle as the goods were shipped. No data captured. No visibility. No tracking. No Analytics.

Supply chain visibility is no longer a luxury. People's lives depend on TMS technology to deliver more than simply rate shopping multiple modes, consolidating loads or putting together a dashboard.

Dated technology companies claim to be introducing cutting-edge concepts like blockchain, AI and cloud servers. But it's one thing to mix these words into your marketing materials and another huge leap to actually execute. The functionality needed by tomorrow's supply chains cannot be performed in outdated technology infrastructures such as SQL databases – which is the chosen technology strategy of every 'leading' TMS technology recognized by analysts in their annual reports. Many of these technologies were architected before mobile phones were even sold.

If supply chains were truly leveraging cutting-edge technology, these deadly events could have been mitigated, if not prevented. The industry is demanding more from today's leading technology companies and the world's leading TMSs cannot support the complexity of real-time visibility in a completely digital and integrated supply chain.

While we can't definitively say the TMS killed anyone, we can say that the supply chain technology lacked the infrastructure required to protect people by locating, or even preventing, contamination. The role of the TMS must evolve as the center of a company's data infrastructure – leveraging AI and flowing information from vendor performance, purchasing decisions, shipping details, customer service, financial decisions, customer profitability, sales policies and more.

Driving Disruption: Planning for the Future of Logistics

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If things aren't evolving in your supply chain to make room for operational improvement, it's time to think about it and plan for it.

R*oyal Oak, MI* – They're popular buzzwords industry-wide. Technology, innovation, disruption – you hear them often and in various context. But what do they really mean for your supply chain and your business?

Industry standards have been set based upon antiquated systems. This leaves the industry caught between legacy processes and a growing need for real-time information.

"Technology capabilities are evolving dramatically faster than general adoption in the logistics industry," said Chief Information Officer, Frank Soehnge. "From automated electronic ordering, real-time truck tracking and automated delivery notification, the technology is there, but the standard industry adoption is still way behind."

Businesses worldwide are overcoming roadblocks created by legacy technologies, manual processes, lack of visibility and lack of collaboration. If things aren't evolving in your supply chain to make room for operational improvement, it's time to think about it and plan for it.

"We take for granted the technology available when we order from Amazon," said Soehnge. "The general logistics industry simply has not caught up with the revolution that is happening. At the end of the day, if you want to be in business tomorrow in logistics, a strategic path to implement these technologies is critical."

Long-term strategic planning and a shift in focus will make a significant impact on the future of your business. Understanding current technology and tech trends that will disrupt and change the way logistics is done today – will allow you to pivot in a way that is realistic to plan for tomorrow.

"Look at technology that will enable operational efficiency," said RPM Chief Commercial Officer, Jake McLeod. "This can be something as simple as addressing inefficient route planning or poor truck utilization."

From apps and robots to artificial intelligence and autonomous vehicles, technology continues to move at a rapid pace. This tech will ultimately replace a good portion of the human element that moves the industry today – eliminating the risk of mistakes and wasted dollars.

"We will see a big push for warehouse efficiency. Loading and unloading trucks quickly will continue to be a way to help reduce cost," said McLeod. "With ELDs now firmly in place and limited hours of service available, current shippers and consignees who are not efficient are going to find themselves short on capacity and paying above market rates."

How businesses plan for market shifts, future tech developments and the use of technology available today, is the key to developing the proper strategy for your supply chain. According to McLeod, customers should have started planning for 2020 in 2017. But it's never too late to start.

"Technology has allowed companies to run leaner than ever," said McLeod. "Carrying no inventory is possible by complex scheduling software, material planning software and transportation tracking software. This has created huge savings for manufacturers."

A few years from now, the logistics industry will look very different than it looks today – most likely adapting to and utilizing high-level algorithms, big data, and early versions of smart programs like artificial intelligence (AI) and machine learning.

"The technology of tomorrow will not only help track inbound freight, but align available capacity in conjunction with these deliveries," said McLeod. "Creating less deadhead and discovering better utilized equipment for a particular load."

Preparing for a future that is more reliant upon technology should remain a priority for companies worldwide. Failure to plan for this will be a critical mistake for players in the logistics industry.

"The pace of advancement and expectation is faster than ever before in our lifetimes," said McLeod. "Knowing where freight is at all times is becoming a reality. The Amazon Prime effect, with the ability to track and know exactly where items are, has become a normal expectation for customers. This is the future of the logistics industry."

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