

IS YOUR SUPPLY CHAIN UNDER-PERFORMING?

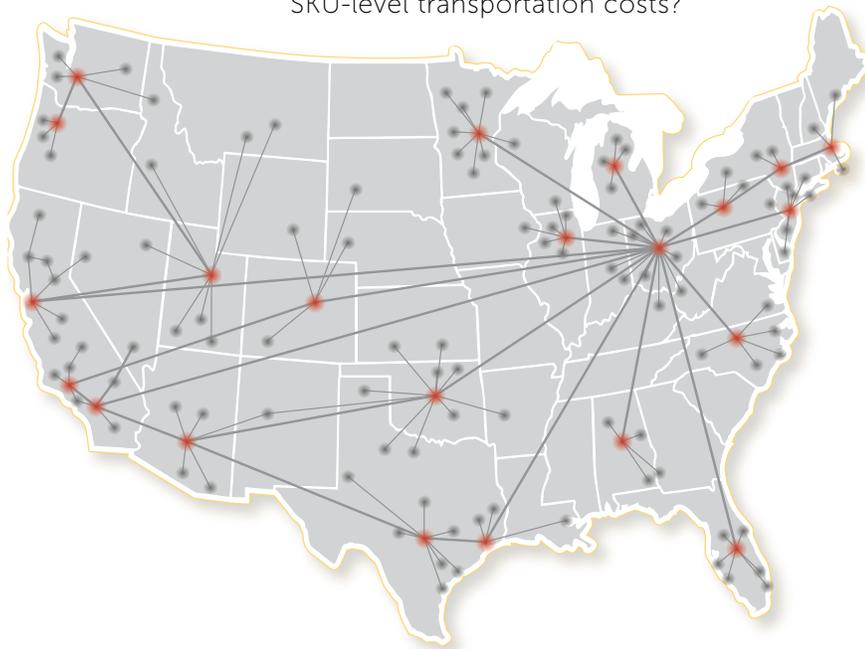
Spotlight on Distribution Centers

IF you're looking to improve your supply chain, it's time to roll up your sleeves and dig into the details of your current transportation and warehouse network. It probably evolved at a different stage in your company's growth and is not optimized for your company's present needs. With so many interlocking components, it may seem overwhelming to contemplate untangling or changing anything about your supply chain. The place to start is always with the data: properly identifying and understanding the cost and value of each component.

In this report, we take a closer look at one of the components that we here at Supply Chain Coach have often found to be out of sync with current company needs: Location of Distribution Centers (DC).

Start With The Data

How fully are your current Warehouses and Distribution Centers being utilized? How many times are your goods being handled between production and the end customer? Do you know your true SKU-level transportation costs?



The key to successfully managing your supply chain is having full visibility into your transportation data. This is usually a formidable task - odds are, you're using multiple carriers and possibly 3PLs for inbound and outbound, who each use a different operating system and data format. Many well-intentioned supply chain improvement initiatives hit this roadblock and proceed no farther.

In our experience, aggregating and harmonizing these data sets is the least well understood and most critical part of any supply chain improvement process. You'll need to identify a project manager in your organization to contact all your carriers and aggregate the data in a format which you will be able to actually use. We recommend using Transportation Management Software (TMS) as your data warehouse.

Analysis and Scenario Modeling

Once the data is accessible, you're in a position to identify inefficiencies, model different scenarios and reveal promising areas for operational improvement.

In the case of Distribution Centers, a key question is to evaluate the location. If we dust off our old Supply Chain Management 101 textbook, we see that the best way to determine the ideal location for a distribution center is the Center of Gravity Equation:

$$C_y = \frac{\sum d_{iy} V_i}{\sum V_i}$$

This formula will give results as good as your data, but even with comprehensive data, this calls out for automation.

This brings us to another virtue of implementing Transportation Management Software beyond the data warehouse function. Properly configured, you can model your past (or present) shipments with various numbers and locations of Distribution Centers, and with various combinations of shipping methods. In fact, much like a chess computer comparing millions of possible moves, with a TMS you can compare every conceivable way to ship your merchandise.

The Best Shipping Method May Be Different Each Day

Depending on the size of the company, there are four main methods that companies utilize: Full Truckload (TL), Less Than Truckload (LTL), Parcel Carrier or Multi-modal. See our Knowledge Center for more about these methods.

Each of these options for shipping have their advantages and trade-offs. What is the optimal combination for your company? The path forward is to benchmark your current shipping costs and performance, and then run your historical data through modeling scenarios which combine different shipping options.

If you're attempting this on your own, be sure to include your delivery requirements in the modeling process. Can loads be held for several days to complete a Full Truckload? Are your goods particularly susceptible to loss, damage or theft, such that LTL is particularly problematic? Are there bottlenecks or other recurring problems in your current supply chain?

Once you have closely examined your current shipping methods and costs associated, you are ready to explore cost savings through lowering the rates by distance. Sometimes this process is as easy as marking several pins on a map to actually follow the path of your product and determine if that path make sense. However most companies have a number of variables that need to be considered before making any changes.

In the most robust implementations, an optimization program is run each day or week, and the best combination, as well as the best-priced carriers, are selected for that particular set of loads. For example, even with a modest volume of shipping, you may have busy weeks or seasons, when you might utilize pool points to send more loads by FTL. This is the essence of the data-driven transportation network.

Want to learn more about Pool Points?

Email your request to info@supplychaincoach.com

The Challenge

CytoSport™ approached Supply Chain Coach during a rapid expansion phase, and challenged us to control transportation costs without compromising production schedules. They were already struggling to keep up with order fulfillment, but shipping costs were growing even faster than revenue.

To better illustrate this part of the process, we'll use our client CytoSport as an example. CytoSport manufactures and distributes sports-oriented nutritional products and functional beverages.

Start With The Data

Reviewing their data, we identified the location of their facilities and a dependence on shipping brokers as key drivers of excessive transportation costs. When CytoSport opened their first warehouse they selected the DC location based on proximity to their manufacturing facility. But neither were near logistical carriers or a railway. This limited their ability to negotiate their carrier contracts or take advantage of the substantial cost savings associated with rail.

It also was evident that their inventory was divided between the manufacturing plant and the warehouse, creating an extra step in their supply chain.



Analysis

Aggregating historical data from their carriers into MercuryGate TMS, we identified that changing the current warehouse configuration was the key to unlocking savings.

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CytoSport
example
continued

Scenario Modeling

We modeled different geographic distribution strategies and advised CytoSport to open two Distribution Centers, one on the West Coast, and one on the East Coast. With this structure in place, they could minimize their LTL transactions by implementing a Pool Points strategy.

With Pool Points, a third-party cross-docking facility provides both pickups and deliveries, saving fuel and giving better service at the retail endpoints. Pool points are a network of cross-dock operations, often managed by a regional third-party warehouse, which provide both pickups and deliveries within a specific territory. Pool points are utilized to manage the flow-through of a smaller portion of inventory, minimizing the less-than-full truckload fees.

Positive Impact On The Bottom Line

CytoSport found over 2 million dollars in savings in the first year alone, and now has a distribution network built to accommodate their next period of growth.

Implementation

The Distribution Center we set up for CytoSport in the West was strategically located in a logistical hub with multiple carriers and a railway, eliminating the need for brokers who in the past negotiated all their carrier contracts. With properly located DCs and the introduction of TMS software, CytoSport was able to use the lowest cost carriers for their shipments, securing better rates with both TL and LTL providers. Beyond that, we helped them negotiate 2-3 year-long carrier contracts that locked in the savings.

Upgrade Your Supply Chain

While every supply chain is unique, Supply Chain Coach applies the same disciplined approach to yield dramatic improvements in cost and efficiency.

Let us do the heavy lifting in aggregating and mining your data. We'll identify areas for savings, including optimizing your shipping methods, renegotiating carrier contracts and creating or relocating Distribution Centers.

More than consultants, we coach your team to be expert stewards of your supply chain.

Ready for a
Complimentary
Consultation?

Contact us at (925) 833-1955 or
info@supplychaincoach.com



supplychaincoach.com ■ (925) 833-1955

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