Implementing Best Practices in Transportation Management

A Guidebook for Companies Seeking to Reduce Freight Spend and Improve Service Levels

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Introduction: Ways to Improve Transportation Management

Commonwealth Supply Chain Advisors recently conducted an online survey of companies to determine what factors had the biggest positive impact on their ability to manage freight in the last year. Companies responded by citing a number of factors, including improved ability to source competitive rates from carriers, improved ability to optimize loads, and to more easily select the right carrier for each load (Figure 1).

Figure 1: Factors that Make a Difference

This document will discuss the top three factors cited in the above chart and highlight areas where companies have used improved processes and enabling technology to reduce rates and improve service levels.
Carrier Contract Procurement

Managing the carrier bidding process can be a daunting proposition – so daunting that many companies do it infrequently or simply rely on spot rates. But improved ability to source rates was cited as the number one reason that companies were able to improve transportation management in Commonwealth’s recent survey.

Why is rate procurement so challenging for many companies? To begin with, the sheer volume of data to be managed can be intimidating. Companies must first analyze their historical freight spend, scraping together what data they have from freight bills and their internal systems. They must then identify trends and make predictions for future business levels in various regions. Then, they must take this massive forecast and transmit it to dozens of carriers for bidding...and for many firms, the hard part hasn’t even begun yet.

When the bids are received, comparing and analyzing them all can test the limits of many data analysts’ abilities. Most companies logically strive for uniformity amongst bids – the proverbial “apples-to-apples” comparison. While a uniform comparison is vital when analyzing multiple bids, it can often stifle the carriers’ ability to offer creative discounts. When carriers offer to drop rates when certain lanes can be bundled together, or create other conditional scenarios, a shipper needs to be able to weigh these possibilities against other bids. Spreadsheets are often stretched thin when it comes to these tasks.

Many companies have found that the solution lies with a new generation of bid management tools. These tools are sometimes – but not always – contained in their company’s Transportation Management Software (TMS) system. Newer TMS systems often have web-based user interfaces to manage the requesting and submitting of bids. TMS providers who offer their solution in an “on-demand” format often have access to a rich database of rates, since all of their users manage loads on the same server. Some of these TMS providers have begun offering “community benchmarking” services to help identify situations where all of the carriers may have bid high on some lanes. They can even suggest alternate carriers who may be able to offer lower rates than the core bidders.

One area where many TMS providers can lag behind however, is in the ability to offer so-called “expressive bidding” capabilities to carriers. This technology still largely falls in the domain of Online Procurement software providers. These companies offer web-based bid management tools that allow carriers to submit “if/then” statements that relate to specific conditions under which they can offer discounts; if the shipper is willing to meet the conditions, their price structure will change. Online Procurement providers also offer the ability to analyze these expressive bids side-by-side with bids from other carriers and play “what if?”. When complex scenarios can be evaluated and compared with other bids, then the balance between uniformity and creativity is reached and the shipper benefits.

Load Optimization

For many traffic departments, transportation execution means simply selecting the best carrier and effectively tendering loads. Little in the way of true dynamic load optimization takes place on a day-to-day basis. The reason? Dynamic load optimization with manual tools is only possible when shipment volumes are low enough for shipping analysts to examine each load on a case-by-case basis. High-volume optimization requires the use of a complex analytical engine usually found only in the optimization module of a Transportation Management Software system. There are four key types of load optimization that most companies contend with:

- **Mode Optimization**
- **Consolidation Optimization**
- **Pool Point Optimization**
- **Multi-Stop Truckload Optimization**

Best Practices for Managing Carrier Contract Procurement

- Centralize procurement and pool purchasing power
- Allow carriers to submit scenarios for bundling and other “if/then” propositions
- Benchmark rates on a lane-by-lane basis against a community rate database
- Use a TMS that can automatically convert bid submissions to electronic rate tables
Mode Optimization
Many companies rely on basic rules of thumb such as weight cutoffs to determine when a load gets shipped via a parcel, LTL, or truckload carrier. However, while these rules may be correct eighty or ninety percent of the time, there are still a high number of instances where a sub-optimal mode gets selected. The only effective remedy is the ability to dynamically rate shop multiple modes and carriers for every load. Only then can the complexities of each carrier contract be taken into account, and regional anomalies be considered.

Consolidation Optimization
As shipment volumes creep up, it can become more challenging to identify and combine multiple loads which are scheduled to ship to the same destination on the same day. It can be even more difficult to identify shipments scheduled to ship on the following day to the same destination, and determine if they can be pooled while still meeting the customer service objective. A robust TMS – relying on accurate data entered in the Order Management System – can often identify these shipments and weigh the cost/service tradeoffs.

Pool-Point Optimization
When companies have a number of suppliers in some distant region, it may make sense to pool inbound loads in a remote location and then make a full truckload shipment to their final destination. In this instance, even more complex decisions must be made as to when it makes sense from a cost and service perspective to follow this strategy. TMS systems equipped with a load optimization module can perform pool point optimization based on pre-defined business rules.

Multi-Stop Truckload Optimization
This form of optimization creates loads where a single truck can leave a distribution center full, and make multiple deliveries. While multi-stop truckloads often can save money, they can be very challenging to create. How much can fit on a truck before it is full? How long will it take to make the multiple stops, and will each load arrive on time? Are the savings worth the complexity? Only an advanced optimization engine can weigh these decisions in a high volume environment. Not all TMS systems offer this functionality, and those that do must have the system fine-tuned to accommodate each company’s business rules.

Carrier Selection & Tendering
The remaining steps in a winning transportation management strategy are selecting the best carrier for each shipment and tendering the load to that carrier. However, without the ability to rate-shop against multiple carriers, and to manage a tiered tendering system, companies tend to rely on rules of thumb to prioritize carriers in particular regions. The process can get complicated when the primary carrier is unable to accept a load, and secondary carriers must be used. Furthermore, the staff members responsible for selection and tendering may be influenced by outside factors – they may prefer to give loads to carriers that they have a personal relationship with, or they may avoid rating loads with multiple carriers simply due to the time required to do so.

Without the ability to easily rate loads against electronic contracts, the traffic department spends much of its time calling carriers, getting quotes, and then calling back the “winning” carrier to tender the load. The result is a traffic group mired in mundane, repetitive transactions, and unable to focus on improving efficiencies.

A TMS can rapidly rate each load against an electronic rate table and determine the first, second, and third choice carriers for each. This ranking can be based on pre-defined business rules rather than an employee’s personal affinity for a particular carrier. In this way, a company-wide transportation program can be executed against, even if there are many
facilities planning loads. Additionally, more advanced criteria can be used to select carriers other than simply the lowest cost. For example, to achieve optimal rates, a shipper may have had to make certain capacity commitments to carriers in specific lanes. An advanced TMS can monitor performance against these commitments and direct loads to lanes where the shipper may be falling behind.

When it comes to load tendering, an effective TMS system can work wonders to reduce the administrative workload of the traffic department. Rather than getting bogged down in a cycle of voice mails and call backs, the TMS can be set to automatically tender loads using defined procedures. For example, the load can be tendered to the first-choice carrier, and if that carrier rejects the load, it is then tendered to the next carrier in succession and so on. Alternately, a load can be “blast tendered” to multiple carriers at once, and the first responder receives the load. When capacity is severely constrained, many TMS systems offer spot bidding capabilities, where shippers can post loads on a spot board and carriers can bid on it.

A key to making these tendering processes work is effective electronic carrier communications. A growing number of carriers are able to communicate via EDI, using direct system-to-system communication. However, for many shippers, their best rates come from smaller carriers who are unable to use EDI. For these, web portal communications can be the best way to interact. Loads are auto-tendered via email, and the carrier clicks on a link within the email to view the load and respond. Responses are keyed directly into the TMS by the carrier themselves, eliminating manual data entry and decision making by the shipper.

Other Areas to Target

In addition to the three largest areas that were cited by Commonwealth’s survey respondents, many companies have experienced significant cost reduction by targeting other areas such as:

- Improving tracking and tracing of shipments (improving customer service levels and reducing administrative load)
- Improving visibility of inbound loads (leading to distribution optimization and improved fill rate)
- Improved ability to audit and pay freight bills (leading to reduced freight spend and administrative costs)

Reducing Costs: Carrier Selection & Tendering

- Follow established rules for carrier selection and eliminate rogue spend with pricey carriers
- Ensure that lower contract rates continue by honoring capacity commitments with carriers
- Conduct effective spot bidding
- Reduce administrative load by auto-tendering with electronic communications
Making the Savings a Reality: Three Deployment Models to Consider

Companies seeking real, tangible savings from the strategies discussed above find themselves confronted with three choices for how to manage transportation at their company:

- **Direct Management**
  - Shipper manages loads with their contracts

- **Managed Services**
  - 3PL manages loads with the shipper’s contracts

- **Full Outsourcing**
  - 3PL manages loads with 3PL’s contracts

The following discussion outlines the general characteristics of each of the three models. Many hybrid approaches exist in addition to these three core strategies.

**Direct Management**

One of the biggest developments over the past decade in TMS technology has been the advent of the “Software-as-a-Service”, or SaaS deployment model. With this model, the software developer hosts the application on their own server. Dozens or hundreds of companies access the same application on the same server simultaneously via a web browser. Each shipper only pays a monthly access fee to use the system, rather than a large and sometimes prohibitively expensive upfront license fee. An additional benefit to the SaaS model is the reduced setup time that comes from the ability to use a pre-existing network of carriers who have already established electronic connectivity to the TMS system.

Companies may wish to consider the Direct Management model if they currently have competitive freight rates, experienced staff members in the traffic department, and/or many special handling requirements that demand a high level of human participation in the transportation management process.

**Managed Services**

Managed Services providers can usually trace their roots to one of two sources: they either began as TMS providers who built a professional services group to manage loads for their customers, or they began as third-party logistics providers (3PLs) who built a TMS tool.

The SaaS model allows a TMS provider to be located remotely but to still effectively manage a client’s loads. The client must still enter the load characteristics into the TMS, but the service provider optimizes the load, selects a carrier, tenders the load, and audits the freight bill. Managed service providers often rate against the shipper's carrier contracts.

Companies may wish to consider the Managed Services model if they have negotiated competitive freight rates from their carriers, but feel that they cannot efficiently manage their loads or do not wish to invest in technology to do so.

**Full Outsourcing**

This model involves completely handing off major parts of transportation management to a third-party logistics provider. The 3PL performs all of the same actions as a Managed Service Provider, but they generally negotiate their own rates with carriers, pooling the purchasing power of all of their collective clients to achieve low rates. The shipper generally does NOT interact with the individual carriers directly, but pays a single provider. 3PLs can be asset-based carriers who operate their own fleets, or can be brokers with large purchasing power and a thick rolodex of carriers to choose from.
Companies may wish to consider the Full Outsourcing model if they feel that they do not have competitive freight rates, and lack the internal staffing or technology to effectively manage their own transportation.

How Commonwealth Can Help

Commonwealth Supply Chain Advisors is an independent consulting firm that helps companies measure their supply chain performance and provides guidance for how to improve it. We are not affiliated in any way with supply chain software providers, freight brokers, or carriers.

Commonwealth takes an unbiased approach to supply chain improvement, and helps companies determine whether the path to improvement lies through optimized processes, supply chain technology, logistics outsourcing, or some combination of the three.

Some of the transportation-related services that Commonwealth offers include:

- **Freight Rate Benchmarking Study**: Commonwealth uses a database of over $5 billion in spend to benchmark a company’s freight rates on a lane-by-lane basis, highlighting competitive and non-competitive lanes and carriers. Approximate annual savings from better carrier negotiation are calculated.

- **Load Optimization Study**: Commonwealth uses an advanced load optimization engine, tuned to your company’s business rules, to determine the approximate levels of savings which can be achieved on an annual basis through improved transportation management.

- **Carrier Contract Procurement**: Commonwealth provides a seasoned freight negotiator using a state-of-the-art bid management tool to help your company manage the carrier bid process.

- **Transportation Management Strategy**: Commonwealth works with a company to determine the optimal way for them to actually realize the savings which have been calculated in Benchmarking and Optimization studies. Processes are reviewed and a long-term roadmap for improvement is developed.

- **Transportation Management Software (TMS) Selection**: Commonwealth uses a comprehensive Request for Proposal process, drawing on thousands of data points to review Tier 1, Tier 2, and Tier 3 providers to determine the vendor which will offer the best value for a company.

- **Third-Party Logistics Provider (3PL) Selection**: Commonwealth uses the same process to evaluate 3PLs, accessing our library of hundreds of different 3PLs in all regions and disciplines.

- **Software Implementation Services**: Commonwealth provides project management services to ensure that your software implementation is completed on-time and on-budget.

- **3PL Transition Management**: Commonwealth helps your company plan and execute a transition to a third-party logistics provider.

- **Network Optimization**: Commonwealth uses an advanced optimization engine to help a company determine the best location for plants and distribution centers, and to evaluate the business case for expanding, contracting, or re-aligning their supply chain network.
About the Author

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Mr. Hobkirk is the co-author of this report. He is the founder and Managing Director of Commonwealth Supply Chain Advisors. His 20-year career has been spent helping companies improve their supply chain efficiency through a variety of strategies. He is a former supply chain industry analyst with The AberdeenGroup, and is a frequent contributor to publications such as DC Velocity, The Journal of Commerce, and Modern Materials Handling.