Transportation Management Technology:
The Options and Benefits

One way to increase the efficiency of the transportation department is to employ a transportation management system (TMS) solution.

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Background

Reduced capacity and resulting higher transportation prices due to the economic expansion and issues such as hours of service have forced companies to reevaluate their transportation operations. One way to increase the efficiency of the transportation department is to employ a transportation management syesystem (TMS) solution. Not surprisingly, in this context a recent survey from the Aberdeen Group shows that expenditures on transportation software will double in the next eighteen months either by companies purchasing new packaged or hosted software solutions or by adding modules to their existing commercial systems.

As readers, you might be looking for specific savings percentages that can be achieved across the various solutions provided in this and future articles. However, the actual savings achieved varies so greatly, depending on the functionality, solution, and company that we cannot be specific about the size of savings to be realized except to suggest that savings can range from 3-20 percent, depending on the application and the firm in question.

Types of Transportation Solutions

· Routing and Scheduling—How can we determine the most efficient route and delivery times for particular shipments in a specified time horizon? This is sometimes referred to as the "newspaper" problem trying to get the most efficient route for a newspaper boy delivering papers across a specified area.
· Vehicle Utilization and Capacity—How can we best load a transportation vehicle to maximize the load and then in aggregate, how do we best utilize the fleet?
· Rate Shopping—How can we automate the search for the lowest rate for a specific product across a specific lane?
· Freight Audit and Payment—How can we automate the process for ensuring freight bills are paid on time and then did we pay them accurately?

· Bid Optimization—How can we get the best price for a set of loads within a specified time period?

Which of these solutions should you consider?

Irrespective of whether you contract out or use public carriers for all of your shipments, you will have different needs than if you are trying to make a private fleet more efficient. Also, the type of freight you ship, the frequency and the time requirements for delivery help

determine if a software solution will improve your operations. Additionally, your perspective (supplier, customer etc.) determines how you view transportation. You might need leading edge functionality in one or two of these areas but need minimal functionality in the others.

Data Requirements Necessary for TMS

Your company and/or your carriers must have significant, accurate data on your transportation operations. You need all volumes, types of product, values, lanes of shipment and delivery needs of all of your shipments. Prior to embarking on a TMS evaluation, you must ensure that all of this data is available across your various systems.

Software Firm Groupings

There are solutions specific to the transportation marketplace, solutions within a supply chain suite and solutions as a part of a more broad ERP system. In this column, we won't specifically mention the names of the players because we would inevitably leave out someone from the list. However, we can talk about the idea of "best of breed" versus transportation solutions embedded within a set of broader functionality. Traditionally, the best of breed or "point" solutions had the most extensive functionality which makes them appealing. On the other hand, many companies don't need all the "bells and whistles" of the leaders and are pleased with the transportation offering that is a part of a solution suite. In terms of supply chain software companies, all of them got their start in one type of functionality (e.g. transportation, warehousing) and then expanded the suite. In regard to the ERP players, they are getting better in terms of TMS offerings but would not portray themselves as always being functionally superior to the best of breed companies.

What Executives Should Know/Do

· Have your team evaluate the past data from your transportation department to see possible seasonal trends for both volume and price.
· Ask that your team has gathered the necessary functionality prior to meeting with any software vendors. This will ensure that what is selected meets your needs rather than your company's requirements being molded to meet the functionality of the software provider.
· Make sure your company runs some of your data through the models to compare their output to your current state.

Benefits of Improving Transportation Management

· Immediate improvements in operating cost — for example, when a lower rate is found, it is immediately realized as a reduction. In other supply chain areas, improvement can take months to realize as in the case of inventory changes.
· Better customer service — by arranging for high quality carriers who deliver on time and protect the cargo, your customers will award you with more business in the future.
· Happier employees — if you employ drivers and can get them home as scheduled, they will be less likely to jump to another company.