Managing Transportation

Capturing value in outbound and inbound freight

Across industries, companies are dealing with ever-increasing transportation costs due to rising energy costs, complex supply chains, and a competitive marketplace where customers are becoming more demanding and therefore shipments are becoming more fragmented. With costs that approach 5 percent of total sales and 15 percent of the cost of goods sold, reducing transportation costs can be tantamount to a company's success—if not its survival.

Citing escalating shipping and transportation expenses that were cutting into its bottom line, a large food manufacturer ("ABC") turned to A.T. Kearney to optimize its freight costs. After analyzing both the company's outbound and inbound networks, we proposed improving freight volumes—minimizing the full effects of rising fuel costs by taking advantage of network synergies across the two operations, which traditionally were separate. The result?

By utilizing its outbound fleet (a mix of common carriers and dedicated vehicles) to haul selective inbound freight, ABC was able to reduce empty miles by 20 percent and save 8 percent in total inbound transportation costs.

ABC is in no way resting on this initial success, however. Because energy costs are projected to rise still further, the company continues to assess its operations in an effort to streamline its transportation logistics and maintain control of its overhead.

A Widespread Challenge

As we demonstrated for ABC, by examining each component of a company's shipping and transportation networks, shippers can optimize both their inbound and outbound costs, contributing to a more favorable bottom line. It's an approach that is gaining acceptance, and, like ABC, many companies are realizing favorable results: Savings of more than 10 percent on total transportation costs are becoming reasonable goals.

This paper highlights the significance—financial and otherwise— of actively managing both inbound and outbound transportation networks, while detailing cost savings opportunities and the means for realizing optimal results.

Reducing Freight Costs

Reducing freight costs is the overriding factor motivating companies to get the best value from their inbound and outbound shipments. The numbers



Business success
in a world of
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your transportation networks.

are persuasive: Over the past two years, freight budgets have increased 10 percent on average, with truckload (TL) costs increasing 15 percent and less-than-truckload (LTL) costs increasing 12 percent. It's not difficult to see why. Specialized customer demands have fragmented transportation service requirements and decreased goods flow densities. As a result, the number of shipments has increased, creating a more complex network of transportation logistics. Coupled with spiraling energy costs (average diesel costs increased more than 30 percent in the first quarter of 2008 compared to the same time last year), it has become financially impractical to continue with the traditional separation of inbound and outbound operations.

A side effect of optimization, but one no less significant than trimming freight spend, is a reduction in carbon emissions. While industries have different standards for identifying sources of carbon (some exclude transportation from direct calculations of the carbon footprint), the net effect, regardless of accepted reporting methods, is that optimizing inbound and outbound networks reduces a company's carbon footprint—a desirable result.

Finding Value in Transportation

Improving a transportation network requires first assessing and identifying cost savings opportunities, which vary somewhat by industry and according to a corporation's operational scale. The following offers key ways to capture savings in transportation.

Combine shipments and minimize empty miles. Getting the best

use of trucks and drivers through well planned and executed chains of continuous moves can save 10 to 20 percent of the costs by maximizing loaded miles.

Increase goods densities.

Increasing the density of goods shipped through complementary freight or volume pooling provides across-the-board freight savings, and companies in a variety of industries are taking advantage. For example, brewing companies in several countries have increased goods density through consolidation (via mergers). A frozen foods manufacturer has ensured full utilization of its shipments through an optimal mix of heavy and light products (for instance, cream). Pooling shipping volumes (either internally or with other companies) or bundling networks with third-party providers can also produce substantial cost savings.

Take back control of inbound freight. Traditionally, inbound transportation was handled by purchasing departments, while outbound shipments were the responsibility of transportation departments. As a result, inbound transportation costs often became an afterthought with little or no consideration given to their freight spend. Moreover, suppliers resisted giving up control over outbound services, which they deemed an operational necessity. However, today suppliers are more receptive to unbundling the freight component, as they recognize its financial implications.

Centralize management. While organizational barriers previously prevented mixing inbound and outbound networks, corporate trends are moving toward centralizing transportation management (either as a shared ser-

Thresholds Demanding Particular Scrutiny

With an increased awareness of transportation costs, shippers and carriers are more receptive to innovative ways of increasing operational efficiencies. Several circumstances in particular should trigger a strategic review of transportation networks:

- Spending \$50 million or more on domestic over-the-road transportation, with a predominance of TL and LTL moves. Shippers with significant transportation spend can realize material benefits.
- Acquiring a new business. This provides an opportunity for the shipper to
 evaluate its distribution network. While a network review illustrates the value
 of consolidating or realigning the distribution center network of the combined
 company, evaluating inbound and outbound transportation can generate additional savings as part of merger synergies.
- Outsourcing transportation as part of a core carrier program. Be sure to
 evaluate the effects of inbound and outbound synergies on lane volumes.
 Consolidating shipment volumes with a select group of carriers affords shippers greater flexibility for negotiating price discounts on high-volume lanes.
- Implementing a corporate realignment. Restructuring efforts that establish
 shared transportation services or outsource logistics to third-party providers
 present opportunities to leverage volume and pool networks.

FIGURE: Four key steps for evaluating inbound and outbound synergies

Assess the opportunity	Analyze the costs	Manage freight movement	Identify network synergies
 Assess potential opportunity based on shipment profile 	 Unbundle inbound costs to understand current transportation rates 	 Align incentives with the goal of lowering total transportation costs 	 Identify lanes with synergy opportunities across the entire network
Criteria may include: Over-the-road transportation spend in excess of \$50 million Mostly TL and LTL moves Mostly dry van with a network density that is conducive to mixing inbound and outbound freight	 Segment out prepaid and collect to identify freight volumes that can be controlled by the shipper Benchmark and compare inbound and outbound transportation costs 	 Evaluate implications of restructuring organizational divisions to gain alignment Determine ideal organizational structure for managing combined inbound and outbound transportation 	 Partner with select carriers that can complement the shipper's network Determine optimal carrier mix (private fleet, dedicated and common carrier)

TL = truckload; LTL = less-than-truckload Source: A.T. Kearney

vice or as an outsourced function to third-party providers). Either approach allows for cost reductions.

Combine inbound runs with outbound backhauls. Demand for more and better service (reduced orderto-delivery cycle times and on-time deliveries, for example) has led some shippers to consider ways to make dedicated and private fleets profitable. While dedicated transportation fleets typically offer more favorable service levels, fleet underutilization is common and costly. And empty miles translate to more waste. One solution is to offset the increased cost by integrating inbound runs with outbound backhauls. The result is substantial waste reduction. Also, by selectively partnering with common carriers, the absolute reliance on dedicated fleets diminishes. Companies can selectively contract out excess capacities, which

increases equipment utilization while reducing empty miles.

Leverage technology. Advances in technology allow cost savings across multiple points. Many shippers are using sophisticated transportation management systems that dynamically identify continuous move opportunities. These tools enable shippers to maximize shipment weight and cube, reducing the total number of shipments as well as delivery lead times and stop charges. For example, Manhattan Associates, a supply chain management software provider, is working with grocery retailers to improve their private fleet operations. By assessing fleet resources and order fulfillment logistics (routing, scheduling and load assignments), Manhattan Associates is helping these companies to decrease empty miles and increase service levels. The grocers can remain vigilant and achieve savings even in the face of late arrivals, changing orders and dynamic driver and equipment needs.

Matchmaking: Finding the Right Carrier and Network Mix

A major requirement for improving transportation costs and efficiencies involves finding and developing synergies with inbound and outbound carriers. There are four key steps to this process (*see figure*). Once the synergy opportunities are assessed, it is imperative to unbundle individual cost components. While most shippers can readily identify outbound shipping costs, inbound costs are usually bundled with the cost of goods. Unbundling these costs provides greater insight into the magnitude of consolidation opportunities.

Managing freight movements and aligning incentives with suppliers and carriers will help lower total transportation costs (the sum of inbound and outbound transportation costs). It is important to note, however, that controlling and managing a greater portion of inbound freight may require organizational restructuring and the consolidation of divisions.

Finally, we recommend selective partnering with third-party carri-

ers. While advanced TL carriers have the scale and visibility to squeeze out most of the empty miles within their own networks, others are challenged with reduced visibility of freight and often do not have the necessary technology to identify and execute efficiencies. By strategically aligning with carriers, shippers can obtain visibility into the carriers' networks, allowing the creation of mutually beneficial driver-to-load assignments.

Managing the Network

Integrating inbound and outbound transportation networks, while selectively partnering with third-party carriers, enable shippers to optimize transportation movements, thus minimizing freight costs. In a world of rising energy costs, complex supply chains and increased competition, business success can depend on how well you manage your transportation networks.

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