Transportation Benchmarking Survey

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Overview

Companies in industrial supply share similar goals related to transportation: manage costs and improve customer service. They do this efficiently and effectively. Transportation has major implications to industrial suppliers both as a cost and service component of their business. As an operating expense, transportation is typically one of the largest expense items on the income statement. As a part of the business, transportation is the first and last link in the supply chain ensuring that the right product is received and then delivered to the right place at the right time.

FedEx, the Industrial Supply Association, and the Supply Chain Systems Laboratory at Texas A&M University recently conducted a transportation benchmarking survey targeting companies that move product through the industrial distribution supply chain. The survey targeted companies that had a definite understanding of the transportation function. While the survey was available to anyone willing to participate, the first page of the survey requested answers to technical questions related to transportation, thereby eliminating many without the data necessary to analyze their transportation function. The survey was taken from both phone interviews and an online survey. [Please note: The survey findings are not statistically significant. Therefore, analysis and comments implied in the report are for the participating companies and not for the industrial supply community as a whole.]

The survey goals were to:
- Understand current transportation issues and concerns in industrial supply
- Benchmark the transportation performance of industrial suppliers
- Highlight key traits among leading industrial suppliers

Executive Summary

This transportation report for industrial suppliers highlights the key findings of the survey conducted for ISA by FedEx and Texas A&M University. The study focused on cost, haul characteristics and modes, metrics and concerns, and issues facing transportation personnel in industrial suppliers.

There were four key findings from the study:

1) Transportation cost is of paramount importance.
   Cost is the top concern of the transportation function now and for the next three years, superseding customer service and reliable delivery times. Cost is also the most important factor in choosing a transportation provider.

2) Outbound delivery haul characteristics will remain comparable to today’s levels.
   According to our survey participants, today short deliveries (less than 50 miles) are the largest share of outbound deliveries and are expected to be the largest share in 2008.

3) Technology investment should be leveraged.
   Technology has finally come to transportation as many are now on some sort of shipping system. However, the majority of respondents do little more than process orders or pass along invoices and MSDS sheets. Far fewer use IT for any other function including tracking carrier performance.

4) Companies with a formal strategic plan for the transportation function outperform.
   The data from the survey was analyzed, and one variable was a key indicator of both a low transportation cost and a high customer service level: a plan for the transportation function. Those survey participants with a transportation plan reported lower transportation costs as a percentage of revenue and a higher on-time delivery rate than those companies not having a plan. Compounding these findings is the fact that companies with a transportation plan had on average more movements of product from supplier to customer than those companies without a plan, which should have resulted in higher transportation costs.
Transportation cost is the primary issue and concern

When participants in the survey were asked to rank the importance of factors used when choosing a transportation provider, cost was the highest ranking response. When participants were asked to rank the top concerns of the transportation function over the next three years, again cost was the top response. Figure 1 and Figure 2 illustrate the responses of the survey. These are not surprising results, especially in a time of rising costs like fuel prices and healthcare.

After cost, participants ranked the importance of factors used when choosing a transportation provider in the following order: on-time delivery, damage rate, pick-up times, geographic coverage, carrier flexibility, shipment tracking, shipment security, invoice processing, carrier financial condition, and carrier technical capability.

After cost, participants ranked the top concerns of the transportation function over the next three years in the following order: customer service, reliable delivery times, information technology, monitoring carrier performance, shipment tracking, fleet and driver management, and automated invoicing.

Cost ranked the highest in the two sets of responses, but customer service and related issues were important as well. In other words, in the struggle between cost and service level, survey participants believed their customer service level is good, and they need to focus on bringing costs down to either increase their value proposition and win new business or to increase their own profitability.
Haul Duration expected to stay constant

Some of the participants in the phone surveys addressed a concern of a possible increase in haul durations. Therefore, participants were asked to indicate the percentage of current outbound deliveries in three haul durations; less than 50 miles, 50 to 200 miles, and greater than 200 miles. Participants were then asked to indicate how these percentages might be different in two years. Although some concern about increases in haul duration were addressed, on average participants in the survey believed virtually no change in haul duration would take place over the next two years. See Figure 3.

Technology in transportation is underutilized

Although many companies use information technology in their transportation function, many are using it for only basic functionality. Seventy-one (71%) reported the use of the internet to share documents, this is little, if any more than email. Only 29% of participants indicated the use of information technology in load plan optimization, 26% in routing and scheduling, 24% in in-transit tracking, 21% in use of EDI, and 6% in fleet maintenance systems. See Figure 4.

Another indication of a low use of technology is the small use of various metrics to track carrier performance. Although 74% of participants use customer complaints as a metric of performance, only 65% use invoice accuracy, 47% use late deliveries, 36% do not track performance, 26% use pick-ups as scheduled, and 18% use other metrics. See Figure 5.
Cost is a top factor in choosing a carrier, and carrier costs are a large component of transportation cost, but surprisingly, carrier performance is not monitored or tracked. According to the survey, 52% indicated costs associated with carriers represented between 76% and 100% of the total transportation cost. With technology, these metrics can be automated, giving companies a better picture of customer service delivered compared to price paid. An increase in the use of technology can increase efficiencies throughout the transportation function.

**A Formal Strategic transportation Plan is associated with better performance**

As noted cost is of paramount concern to industrial supply companies, but all companies have that concern and focus on being as efficient as possible. However, one objective of the survey was to find the one or two things that industrial companies do to give them a competitive advantage. The answer was not a practice or policy, but a plan. Those companies (82%) that had a transportation plan reported lower cost as a percent of revenues than those that did not (62%). See figure 6. These costs included carrier and all third-party logistics costs, transportation labor costs, and other costs related to the owned or leased fleet of the surveyed companies. In addition, 82% of participants with a transportation plan reported on-time delivery service in the 76% to 100% range, versus 71% of those without a plan. (see figure 8) Although not dramatic, combined with the cost statistic above, it does show that service is not sacrificed for lower transportation cost in these companies.
Please note, the survey only indicates a correlation between low cost/high service level and a plan. The data is not conclusive on a cause-and-effect relationship. The survey results do not determine if having a plan leads to lower cost and higher service levels or if having low costs and high service levels lead companies to create a plan as they try to look for that next level of improvement.

Some other attributes of companies with a plan versus those without were that they tracked carrier performance (See figure 9), they held more meetings with their carriers (see figure 10), they used IT more (see figure 11), and the transportation function managers had more input into other areas in the organization (see figure 12).

The conclusion is that more transportation personnel in companies with a plan are becoming more involved than "just shipping". They are being tasked with strategic issues as it relates to the supply chain, monitoring and getting results, which are lowered costs and increased service levels.

Figure 8: Percentage of On-time Delivery

Figure 9: Carrier Performance Tracking

Figure 10: Number of Carrier Meetings
Conclusion

The survey reported some interesting facts about transportation management in the industrial supply chain. All of the companies participating in the survey are leaders in their field, some are world class. No matter how you slice the data, companies share similar concerns and issues about the transportation function. Cost is the top concern, followed by customer service issues, then by additional value added aspects of the transportation function. Haul characteristics are expected to stay the same on average over the next two years. The majority of the companies in the survey are not using technology to the extent possible. Some distinctions can be drawn between companies in the industrial supply chain as related to transportation. Companies indicating the existence of a transportation plan for the transportation function have a better cost structure, have better customer service, and participate in more value added aspects related to the transportation function as well as other facets of the organization. A formal transportation strategy should be a part of the business strategy for any company in this channel.