Coaches and generals have long known that when tactics aren’t working, it's time to change the strategy. Logistics managers appear to have come to that same conclusion.

“Shippers have tried all the tactics out there,” observes Dr. Mary Holcomb, associate professor at the University of Tennessee and one of the study’s authors. “In the last 12 to 18 months, they’ve concluded that what they need to change is the network.”

Shippers Expect Higher Costs

For the past 15 years, the Masters of Logistics study has identified emerging trends in the field of logistics and provided benchmarking data on transportation and distribution. As has been the case in the past, Logistics Management conducted the study in partnership with researchers at Georgia Southern University, the University of Tennessee, and the consulting firm Capgemini. In addition, Intel and Oracle participated in the project this year.

More than 1,100 shippers took part in the online survey. Those respondents accounted for an estimated $61 billion in transportation expenditures, 62 percent of which is spent on domestic movements and the rest on international. Few of them work for corporate giants; 43.4 percent work for companies with less than $250 million in annual sales, and just 7 percent of the respondent pool said their companies’ annual sales exceeded $9 billion.

Survey participants hailed from a cross section of industries, but manufacturers, with 40.8 percent of the respondents, represented the core group. This group included such sectors as general manufacturing, high tech, consumer products, and automotive.

When asked to name the type of customer receiving their products, 35.6 percent said that their primary customer was a manufacturer, while 29.5 percent shipped mostly to a distributor or wholesaler; 20.5 percent said they shipped to the end consumer, and 14.4 percent were shipping their products to retailers.

When it comes to domestic transportation, 69.6 percent of respondents said their companies spent $49 million or less on such services. Another 9.6 percent indicated that they spent between $50 and $99 million on domestic transportation, while 18.5 percent said their companies spent between $100 million and $499 million. Only 2.2 percent were really big spenders, purchasing more than $750 million annually in domestic transportation.

This year, for the first time, the survey asked respondents to provide details about their international transportation expenditures. The vast majority (81.8 percent) of survey participants said they spent less than $49 million on global transportation. Another 8.3 percent purchased between $50 and $99 million worth of international transportation services, and 7.4 percent spent between $100 million and $499 million on global transportation. Just 2.5 percent reported spending more than $750 million to move their raw materials and finished goods around the world.

A partial profile of the average survey respondent emerged from this year’s data. The largest group (41 percent) of shippers said their shipments originate from a manufacturing plant or from a warehouse located at a plant. The average length of haul was 560 miles, and the average shipment weighed 12,360 pounds.

If you’ve been following industry news, then it will come as no surprise that most shippers are bracing themselves for higher costs in the months ahead. Based on respondents’ reports, they are most concerned about prices for surface package, rail, intermodal, air freight, and truckload transportation. (See Figure 1.)
Most survey respondents placed the blame for rising rates squarely on fuel surcharges. The number two factor pushing up expenditures, they said, was equipment availability. The hours-of-service regulations for truckers was rated the third most important factor in significantly increasing rates.

Despite higher rates, our study found, transportation expenses as a percentage of a company's costs appear to have leveled off. Last year, transportation expenses accounted for nearly 3 percent of the cost of goods sold. This year, that percentage stood at 2.9 percent. The same could not be said for transportation costs as a percentage of a company's sales. That figure rose from 2.8 percent last year to 3.19 this year.

Modal Spending Shift Continues

Since its inception, researchers have asked participants to break down their transportation spending by category. This year's responses indicate that shippers are continuing to shift their freight dollars wherever they can in order to control costs (see Figure 2).

For example, the percentage of transportation budgets spent on truckload transportation dropped for the third consecutive year. Two years ago, shippers spent 29.8 percent of their transportation budgets on truckload shipments. Last year, that number fell to 28.9 percent, and this year it dropped even further, to 25 percent. In part, this could be due to a new category—dedicated carriage—that was added this year. Shippers said they spent 8.2 percent of their freight budgets on dedicated carriers, which may account for some of the shift away from truckload, private fleets, and national less-than-truckload (LTL). Regardless, it remains clear that shippers are looking for alternatives to help them deal with driver shortages and rising freight costs.

One of the big beneficiaries of this spending shift has been regional trucking. Last year, shippers spent 9.9 percent of their freight budgets on regional LTL carriers; this year, that percentage climbed to 12.6. National LTL carriers also saw an uptick as shippers spent 11.8 percent on National LTL truckers compared to 10.6 percent a year ago.

Shippers also bestowed more of their freight dollars on express-package services. That category jumped to 10 percent this year, compared to just 6.4 percent in 2005. They also spent 8.1 percent of their budgets on surface package carriers. This represents a new category so there's no direct comparison with last year, although it does appear to indicate a shift toward more frequent, smaller shipments and away from larger, bulk movements.

The survey results also indicated that shippers are re-examining their use of rail transportation, perhaps in response to repeated service and congestion problems. The portion of their transportation budgets devoted to rail dropped significantly, from 5.9 to 2.3 percent. Intermodal also experienced a dramatic decline, from 3.6 percent to 2.4.

Finally, spending on private fleets also fell, sliding from 13.7 percent of the freight budget last year to 10.9 this year. Airfreight spending dipped slightly, from 4.5 percent to 4.2 percent. Fewer shipments seem to be heading out on the water: Barge fell from .8 percent to .31 percent, and ocean shipping dropped from 6.6 percent to 4.3 percent.

Service Woes Unabated

Carriers' performance numbers fell, a finding of special concern considering that performance stumbled big time the previous year. In particular, they continued to struggle with on-time delivery. The mode with the worst record when it comes to meeting delivery schedules was rail. The on-time delivery percentage for railroad shipments dropped from 88.4 percent in 2005 to 75.9 this year, a historic low for our survey (see Figure 3).

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The on-time delivery rates for the various types of motor carriers also skidded. Truckload carriers' performance declined from 95.2 percent in
2005 to 94.1 in 2006; national LTL slid from 93.8 to 91.6, and regional LTL dropped from 95.1 to 94.0. Even the on-time delivery ratio for express package carriers took a hit, falling from 97.7 to 96.0 percent.

It should be noted that on-time delivery was ranked by survey respondents as the most important consideration when selecting carriers. In second place was on-time delivery of complete, undamaged shipments to customers. Clearly, shippers expect their carriers to keep their delivery promises.

“From a metrics perspective, this is good news, as this is bringing us all closer to tracking the perfect order,” says Dr. Karl Manrodt, an associate professor at Georgia Southern University and a co-author of the study. “A perfect order is on-time, complete, damage-free, and has the correct documentation. If everyone in the supply chain starts to measure the same areas, improvements are bound to follow.”

Equipment availability might have been a factor in truckload carriers' tardiness. When asked what percentage of their requests carriers were able to fill with available equipment, truckload shippers said availability had fallen from 93.5 percent in 2005 to 90.4 percent in 2006.

But according to our survey, shippers using other modes saw slight improvements in equipment availability. National LTL’s record jumped from 95.2 percent in 2005 to 97.9 percent in 2006; Regional LTL rose from 96.0 percent to 97.6 percent; and express package rose slightly from 98.2 percent to 99 percent. Even rail improved, making equipment available to shippers 90.1 percent of the time in 2006 compared to 88.7 percent last year.

Other performance categories also showed progress. The percentage of truckload shipments incurring loss and damage claims fell from 2.2 percent in 2005 to 1.7 percent in 2006. Likewise, the percentage of National LTL shipments with such problems dropped from 3.1 percent last year to 2.6 percent this year. The same pattern was seen in other modes. Regional LTL declined from 3.4 percent in 2005 to 2.7 percent this year; rail saw the biggest change, from 5.6 percent to 2.1 percent; and express package fell from 2.1 percent to 1.6 percent (see Figure 4).

Invoice accuracy proved nettlesome for shippers, as carrier performance deteriorated in this area. Truckload shippers saw billing errors in 3.3 percent of their shipments compared to 2.7 percent last year. Billing errors for National LTL movements rose from 3.9 percent in 2005 to 4.7 percent this year, while Regional LTL climbed from 2.9 percent to 3.8 percent, and express package jumped from 2.6 percent to 3.6 percent.

Interestingly, rail actually improved, going from 4.1 percent in 2005 to 3.5 percent this year. “The abundance of fuel surcharges and accessorial surcharges appear to be complicating the invoicing process,” says Peter Moore, a vice president at Capgemini and a member of the survey team. “This requires greater integration of technology and processes to ensure that customers are charged appropriately.”

Capacity problems in the truckload and rail sectors this past year were reflected in rising turndown ratios. The average percentage of rail shipments declined by carriers was 2.8 percent in 2006, compared to 2.2 percent in 2005. Similarly, the percentage of shippers’ requests for truckload shipments that were turned down rose from 4.3 percent in 2005 to 4.9 percent in 2006. The turndown ratio for Regional LTL shipments remained the same as last year at 1.7 percent. The rate of declined requests for express package service fell from 1.0 percent to 0.6 percent, while National LTL’s rate dropped from 1.8 percent to 1.3 percent.

Betwixt and Between

Last year, the data suggested that shippers might have started retreating from the core-carrier concept, where they give the majority of their business to a core group of providers that offer outstanding service. This year, the responses indicate that shippers have not abandoned that concept entirely, but rather are hedging their bets to ensure the availability of capacity. In fact, 64.4 percent of respondents told us they had no plans to drop their core-carrier programs, compared to 18 percent who plan to do so in the future, and 17 percent who were either implementing or considering such a move. One reason core carriers remain in favor with many shippers: “There are lots of deals being put together where you have assurance that you’ll have the capacity,” said Holcomb.

Still, the survey found a fair number of shippers who said they plan to increase the number of carriers they use. In fact, 22.1 percent of truckload shippers, 37.8 percent of intermodal users, 19.7 percent of ocean shippers, and 15 percent of rail shippers
indicated their intention to engage more carriers. “Although shippers want to stick with a smaller group of carriers, they are adding carriers selectively,” Manrodt notes.

The survey also shows that shippers are “betwixt and between” in the current business environment. When asked to describe their overall strategy for their business unit, 39.8 percent of respondents said, “Be all things to all people.” On the other hand, 36 percent said that customer service was their top strategy. Another 14.7 percent cited product innovation, and 9.6 percent said cost leadership.

But when asked to describe the primary objective for their business unit during the past year, 35.9 percent of respondents reported that it was to increase customer satisfaction. About one-third (33.9 percent) cited reducing costs, 20.7 percent said maximizing profitability, and 9.7 percent cited maximizing asset utilization. That finding highlights the competing demands that are putting shippers under so much pressure these days. “Logistics is often tasked with dealing with the firm’s multiple and opposing objectives at the same time—keep customers happy and reduce costs,” Moore points out.

In Manrodt's view, this indicates yet another shift in shippers' strategies. “Fewer are focusing on cost leadership, and more are attempting to serve a wider variety of customers,” he says. “This adds complexity to the supply chain processes needed to serve the customer.”

With those conflicting objectives, it’s not surprising that shippers have begun to differentiate between customers. The survey found that shippers generally treat their best customers differently than they do their average customer (see Figure 5). On-time delivery for the best customers was 95.6 percent, but the average customer received on-time shipments only 89.5 of the time. “Companies are still differentiating between who’s critical and who’s marginal,” says Moore.

Shipper Mind Shift

The most significant finding overall was the mind shift on the part of shippers in response to soaring transportation costs. Shippers have tried numerous tactics to control costs, including improved shipment consolidation, carrier tracking, and shipment visibility (see Figure 6). Having implemented those tactics, shippers must now re-examine their strategies. No surprise, then, that the survey finds nearly one-third of the respondents (32.2 percent) giving serious thought to redesigning their distribution networks. More interesting, 20 percent are considering implementing multi-company, collaborative shipping schedules. Under this approach, shippers collaborate to optimize transportation movements by pairing up their backhauls and head hauls, for example.

The survey results also indicate that shippers want to optimize networks on a broad scale rather than implement measures to control costs for one mode. “Logistics managers realize that the world is changing,” says Manrodt. “They can no longer apply tactics to control costs and deliver high levels of service in the face of relentless hikes in transportation expenses. This requires a strategic approach and a redesign of networks.” Adds Holcomb: “It’s an extreme makeover, and it’s not for the faint of heart.”

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