

Transportation Management Systems Give Shippers Power to Make Smarter Trucking Choices

by Amy Zuckerman

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Imagine serving the transportation needs of a conglomerate like Johnson & Johnson, with divisions as diverse as medical devices, consumer products and pharmaceuticals, without proper technology support!

Tim Kline, Senior Transportation Analyst for Johnson & Johnson's Global Transportation Organization (GTO), located in North Brunswick, N.J., knows all about difference between shipping baby powder and medical stents. And, he knows that the data generated by multiple shipping transactions is not only "extraordinary," but must be able to support thousands of transmissions in the course of a week.

Given such complexity and demand, a reliable transportation management system (TMS) is critical but—as far too many disgruntled customers can testify—TMS has historically promised more than it delivers. But, that's starting to change.

Five years ago, J&J started deploying a transportation management system, which Kline says, "has helped us meet the very different needs of the individual sectors." Medical devices, for example, require a highly automated system to meet just-in-time shipping schedules. With a TMS, Kline says 99 percent of the orders pass through the system without a human having to touch them. Now this model is being applied to consumer products, as well.

The TMS, which is provided by JDA Software Group, based in Scottsdale, Arizona, has not only made the GTO more flexible, says Kline, but he doubts his division—which has to compete for the company's transportation business—could be competitive without it.

Kline is not the only transportation manager touting the value of a TMS today. In fact, the world of transport has become so complex, with a slew of business, accounting, security, global trade compliance rules to follow—and all that besides tracking shipments—some companies are finding that they can't attract carriers without TMS backup, according to Bill Pritz, Vice President of Logility, a manufacturer of supply chain management system and other transport software, based in Atlanta, Georgia.

"Even people who have made decisions on TMS four to six years ago are re-evaluating their solutions. I think many companies are looking at transportation more as part of whole supply chain rather than a back end system," said Pritz, who added that the case for return on investment with a TMS "is pretty clear cut. The ROI improves every year on a tool that won't be a one-time investment, but continual payback year after year."

In general, a TMS is a software suite that automates the business processes of building orders, tending loads, tracking shipment, audits and payments. With the right data warehouse it's then possible to analyze performance and costs.

For Rockline Industries, a paper product manufacturer based in Sheboygan,

Wisconsin, working with Logility Transportation's TMS suite has reportedly helped reduce costs and increase visibility, according to Pritz, who is based in Logility's Chicago, Illinois office.

Rockline, which supplies coffee filters and private-label baby wipes to some of the world's biggest retailers, has plants in four countries and customers in 50. Given pressure to meet retailer demands, Pritz says, "visibility has been a big issue with them. Having the ability to be alerted to the possibility of late deliveries and being able to be proactive with their customers is something that concerned Rockline." Matt O'Connor, Rockline Director of Logistics, knew they needed "transportation improvements," particularly the ability to monitor key performance indicators such as costs per week, the average shipment size and changes in the demand mix.

Centralizing all transportation functions with Logility's "pliable system" has helped Rockline "find tremendous value at low cost," said O'Connor.

LifeWay, a leading publisher, distributor, wholesaler and retailer of faith-based materials based in Nashville, Tennessee, ships over \$428 billion worth of books, music, supplies, gifts and goods around the world annually to major retailers and its own 124 stores across the United States. With thousands of orders leaving LifeWay's loading docks each week, company officials estimate transport costs to be about \$12 million annually.

Several years ago, company officials realized they had to reduce freight costs, vendor charge-backs and dock labor, while improving information flow throughout the supply chain to meet customer and carrier compliance requests. Officials, who also wanted to introduce a systematic freight audit component, sought a single solution TMS that could support multiple distribution centers, provide optimal rating and manifesting for multi-modal shipping, among other functions.

LifeWay eventually deployed a TMS from HK Systems based in New Berlin, Wisconsin, one of the largest providers of automated material handling and execution solutions, specializing in managing multi-faceted shipping environments that involve multiple carriers, modes, owners, consignees and hubs for inbound, outbound and inter facility moves. According to HK officials, its TMS solution provided electronic uploads of all major carrier manifests and reduced or eliminated manual processed shipments, plus this closed-loop order process provided visibility of parcel life cycle. With the ability to add customer specific routing rules, vendor charge backs due to failures to comply with routing guides were reduced.

Eric Mark, an account executive based in HK's Mississauga, Ontario office, says the HK solution "reduced LifeWay's cost per parcel by 14 percent, driving a return on investment in just 15 weeks." And, LifeWay officials found that the true cost control came from their system's ability to analyze freight costs across shipping modes. HK's TMS provided proof that LTL (less than truckload) and CWT (carton-weight parcels) costs often overlap through multiple weight breaks, said Mark.

JoLynn Lords, import-export compliance manager for Sojitz Corporation of America, a major international, Japan-based trading company, with its United States headquarters in New York City, working with corporate giants like Boeing and Nike, believes that deploying a TMS offers "better infrastructure to assist customers. Customers need to have the best service possible. They need to know where their goods are and where, how and when their goods will be picked up and delivered.

Tracking is important to customers and the TMS piece provides better information on tracking carriers—this is a value-added service that translates into cost-savings as well,” she said.

Sojitz is currently deploying a Web-based TMS from QuestaWeb, based in Westfield, N.J., a manufacturer of import/export and transportation software, which Lords finds “appealing because it is not only Web-based, but provides data in real-time and is a customizable off-the-shelf solution. We have selected software that will work well with our ERP (enterprise resource planning) system, as well.”

Transport issues driving technology changes

“No matter the day-to-day issues, the one factor that continues to encourage people to adopt technology, particularly a TMS, is cost reduction. That’s always the No. 1 issue that people in transport want to do. And when it comes to driver issues and availability of equipment, we find TMS holders are feeling less impact than others because without a TMS you don’t have the mechanisms in place to react quickly,” said Pritz.

He cites the example of a frozen food manufacturer that was finding itself in a delivery bind: not only were carriers charging more, but then they didn’t have the equipment to make promised deliveries. Pritz says they used their TMS to “forge a strategy. They decided to be more carrier friendly and started to use some of the system’s capabilities of system to get carriers on committed lanes with pretty large volumes, and get commitments from carriers to handle the lanes.”

Just by changing their system, including payment schedules and setting delivery time tables, this manufacturer “turned themselves into an honored customer of the carriers, which in turn, made them more reliable to their own customers,” Pritz said.

SAP, the ERP giant now focusing more on the transportation sector, is finding driver shortages in Europe and the U.S. key reasons that customers are focusing more on automating their transportation functions, says Bernd Mosbrucker, SAP Director for Solution Management, who heads up a supply chain management team located in Walldorf, Germany.

In Europe, Mosbrucker says there are new laws rolling out that mandate tracking of the driver and electronic monitoring of driver behavior, which has led to a 20 percent reduction of drivers serving European fleets. “And in the U.S., there’s been a driver shortage already,” which he says has prompted SAP to develop TMS software that is addressing issues from driver scheduling to routing and enforcement of labor union rules, all of which he says must be addressed “otherwise costs will increase dramatically.”

Mosbrucker is also starting to see major shifts in shipping roles and “shippers and customers seeking more influence on the system and process.” In a study of manufacturers that SAP developed, he says 85 percent are satisfied with their carriers, but only 40 percent feel they had enough visibility with the carrier. And, some complained that the carriers were not as evolved technologically as they are. “They’re looking for more direct collaboration and integration with their carrier,” he said.

A chemical company in the U.S. running SAP applications decided to completely outsource their transportation to a carrier. But, in time, he says they realized they were losing contact with the end customer and therefore losing sales. Although they kept the arrangement, they wanted to keep the control and decided to institute more communication with their customers, which forced the carrier to provide visibility to the process, he said.

"It was the difference between monitoring and managing a business process. The customers wanted more real-time information from the carrier to be able to make decisions by themselves," Mosbrucker said.

In the U.S., officials at HK Systems are seeing a change in the product order mix, which Mark says "is becoming much more variable and smaller in nature." Shippers serving major retailers "don't have weeks at a time to plan shipments like the truckload world. The transactions and shipments are coming at a higher speed and volume. They're finding demand is more sporadic and the volumes aren't a great," he said.

These changes are driving tech vendors to develop more sophisticated tools that can handle the shift to higher numbers of goods per shipment that means shippers are receiving "multiple orders on the same day that would fit into a FedEx box 10 times a day rather than a tractor trailer," all of which Mark says are increasing costs.

At the same time, he says shippers are trying to meet an ongoing array of big-box retailer rules "that customers are imposing on the at the same time they are dealing with increasing numbers of shipments." He's seeing costs rise when organizations, which lack the effective tools for this environment, "create piecemeal methods to cope and then allocate more people to the job." All of which drives up costs, Mark explains.

The technology response to assist shippers

Then there is the issue of carrier surcharges, which Mark says the carrier community "is enforcing on a more regular basis along with carrier compliance rules, such as labeling requirements. So, the carriers are driving software changes in TMS as well." HK Systems responded by developing software that allows shippers to set up rates, rules, and complex structures like fuel surcharges within the system "so they aren't relying on Bobby on the shipping dock to remember where FedEx differs (on rules) from other carriers," Mark said.

Technology vendors are responding by increasing the depth of visibility their systems allow. Pritz explains that visibility now includes "the shipment, the stops, the orders on the stops and products, which is much more depth of data than was seen before." And with many trading partners willing to share data, he says a top TMS can provide information not only on orders, but also on the products being shipped.

"The whole network optimization piece—the ability to look up multiple pickups and drops and distribution strategies—is another area we've spent lot of time and energy on along with business intelligence. We've spent a lot of energy providing tools to analyzing the data, generating reports and exception information," Pritz added.

SAP and QuestaWeb are creating what Mosbrucker calls "collaborative ecosystems"

between manufacturers carriers and their customers to allow their parties to truly interact rather than just handing over data to one party. "We believe if there are standard processes and connections in place, you can have real-time interaction in place. This will help ameliorate a lot of processes and activities along the supply chain," Mosbrucker said.

Both Pritz and Wayne Slossberg, QuestaWeb Vice President of Business Development, point out that there are now truly Web-based solutions that didn't exist only a few years ago that allow for additional functions. Carriers, for example, can post what equipment is available on a daily basis so customers can plan loads "on the fly," said Pritz. And, Kline says J & J utilizes a Web-based system to help their business sectors connect without the need for integration software.

Slossberg explains that their Web-based system allows parties to a shipment to see "all the spokes in the wheel. Look for technology that is really Web-based because it opens up your supply chain. The Web brings all shareholders to the supply chain into one place and assigns entry to a central system to share information."