

## best practices in transportation

### Freight data management: which elements are essential to capture

One of the most frequently repeated lines in business is that you can only manage what you measure. This well-known business principle applies just as well to freight transportation. To effectively manage freight transportation, there are a number of key data elements that need to be captured.

The most fundamental building blocks are the individual boxes, parcels, envelopes, cartons, drums or pallets. Each individual item must be properly classified, dimensions measured (e.g. height, length and width), weighed and photographed. Any other distinguishing features such as type of material (e.g. hazardous), the state in which it must be maintained (e.g. dry, frozen, chilled, etc.), freight handling requirements (e.g. forklifts, pallet jacks) and loading requirements (e.g. do not load with chemicals) must also be documented. Capturing this data correctly and completely allows each shipper to address such fundamental issues as the type of container to be used, space occupied, loading plan, etc. This data is also critical when conducting an RFP as a means to selecting the appropriate modes and carriers.

The data that each shipper maintains must contain certain data elements in order to be useful for analysis and planning purposes. The following data fields are essential: shipment number; pickup date; origin zip code/postal code; origin city; origin province or state; product description; shipment weight; unit of loading (e.g. box, pallet, etc.); carrier name; mode (e.g. courier, LTL, truckload, carload, etc.); destination zip code/postal code; destination city; destination province or state; delivery date; line-haul rate; fuel surcharge; other accessorial charges; and shortages or damages

Shippers with private fleets must also maintain detailed records on each piece of equipment such as equipment type, dimensions, manufacturer, date purchased, miles driven, maintenance schedule, etc. The location of each vehicle should be specified through good yard management practices. In addition, there is a requirement to track such items as loaded and empty miles, revenue per trip, direct and overhead costs per trip, fuel costs, and driver name. This way the fleet can be managed as a profit centre. Similarly, the location of all vehicles (e.g. in yard, at customer's premises, en route) must be tracked so as to ensure that these assets are being utilized as productively as possible.

The data must be audited on an ongoing basis to make sure that it is accurate and complete. A clerical error (e.g. inserting 100,000 instead of 100 lbs or leaving a block of fields blank) can throw off a year's worth of data and lead to an erroneous analysis. Data auditing leads to data cleansing. Erroneous data must be cor-

rected; data for missing fields must be gathered and entered into the data template. The source of the errors must be identified and fixed.

A number of analyses must be performed on an ongoing basis to monitor trends. Among the key items to be tracked are:

- Total annual freight costs
- Percent increase/decrease in annual freight costs
- Fuel surcharges as a percent of total freight costs
- Freight costs as a percent of supply chain costs
- Freight costs as a percent of revenue
- Percent of freight costs by mode
- Freight costs in descending order by carrier
- Percent of freight given to each carrier by mode of transport
- Percent changes year-over-year in freight costs by mode
- On-time service by carrier
- Claims cost as a percent of revenue
- Billing accuracy

The data must then be scrutinized and managed on a consistent basis. Deviations (e.g. increase in expedited freight costs, late deliveries, load refusals) must be identified, challenged and corrected. The appropriate management and non-management individuals must be tasked with meeting objectives (e.g. freight KPI's) in order help the company achieve its bottom line. Following these best practices is another step in that direction.

Another important area of freight data management that is sometimes overlooked is carrier management. It is very important to maintain complete and accurate files on each of your carriers across all modes. The file should include a questionnaire that captures the salient characteristics about each carrier (e.g. key contacts, safety rating, fleet size, special certificates and capabilities, (e.g. HACCP, refrigerated service, etc.))

Finally, there should be scorecards and dashboards in place to track performance. A scorecard is often an historical document that contains snapshots of data, at specific points in time, on the company's key transportation-related KPI's. Dashboards are often used as advance warning tools. They highlight missed pickups and potential late deliveries and can be used to trigger corrective action and to give customers a heads up in advance of any service failures. Best practice is to consistently measure the right variables at the right time so as to ensure a smooth running, cost effective supply chain.

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