Inventory Visibility to Cut Fixed Costs, Boost Customer Service

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The goal of a supply-chain system -- or any information system -- is to make certain that the right people get the right data at the right time, though that doesn't always happen the way it should.

Metal service centers are make-to-order businesses where time is critical. Often, the staff scrambles to track customer orders, and sometimes employees get bogged down trying to figure out the status of a customer's order. And, sometimes purchase orders that should have been canceled are not canceled fast enough, resulting in inaccurate inventory counts and excess inventory. All of these factors lead to higher supply costs, and signal the need for change.

Information visibility is key to optimizing a supply chain. This means that all partners along the supply chain have the same access to the same data. Ideally, it means that all partners can see the point of sale (POS) data when a consumer purchases the end product. Therefore, they know what actual customer demand is, rather than a forecast. In the other direction, it means that everyone knows the state of the production process, which products are in production and when they're due to be complete.

As supply-chain management technologies advance, enterprises are moving beyond applications that simply balance supply and demand to technology that quickly analyzes the impact of various decisions to help companies boost product margins and lower costs. Increasingly, companies are turning to optimization technology in the form of business intelligence (BI) tools to offer real-time suggestions for problems like shipment delays and inventory fluctuations.

Enterprises are moving to the optimization element of supply-chain management because enterprise resource planning (ERP) and electronic procurement systems have made it easier to extract the business process data needed to feed BI technology. Advanced planning used to be done on a quarterly basis, but now its possible on a daily basis. In short, it's possible to re-optimize today's data for tomorrow.

In addition to the need to improve internal information flow with a single integrated system, they want to extend their IT to supply-chain partners. Most often, they want to improve the flow of information to suppliers, and to establish a uniform reporting format for different plants buying from the same supplier. With the right optimization tools, service centers can expect to know what this costs them and whether the effort is profitable, or whether they should be sourcing an order from one location versus another. In addition, this will allow the company to increase customer satisfaction by allowing it to guarantee deliveries in real time, using optimization tools to query inventory and shipping potential.

Inventory visibility is required to provide optimization that can alert a planner if inventory falls below a certain level, and provide options for dealing with the problem. It can look at the many constraints and offer suggestions. If a priority customer is going to be affected, the system can be configured to bump lower-priority customers instead, but visibility is needed so that everyone is informed.

Despite the potential of BI on optimization technology, some vendors may be challenged to integrate the enormous amount of data generated by back-end enterprise systems into BI tools and advanced planning software. Steelman Software Solutions developed and launched a Web-based approach specifically for service centers, to ease them into supply-chain management without the costs and resources needed to operate software. These are attractive tools for enterprises with multiple divisions and those suppliers that require access to aggregated demand view. Eventually, some customers may allow them to access production data and collaborate with suppliers and partners.

Coming in the next issue, "How SCM tools can help achieve information visibility."

BENEFITS OF INFORMATION VISIBILITY

Sharing data such as demand and supply information is the first step towards supply-chain integration and e-business and it can:

- Avoid high inventory costs and shortages.
- Deliver consumer insight via "point of sale" data to mills, processors, distributors, manufacturers, and retailers.
- Give manufacturers knowledge through a broader market vision.
- Open a route to collaborative product design.
- Facilitate collaborative planning and forecasting.

SHORTCOMINGS OF INFORMATION VISIBILITY

More information is not always better information. Problems include:

- Overcoming the impulse to reserve (i.e., hide) information from other organizations
- Meshing incompatible information systems
- Recognizing that information can reveal strategies that organizations prefer to keep hidden
- Managing too much information, and identifying what to pay attention to, to avoid "analysis paralysis"
- Taking time to build trust with partners, to the point when sensitive information is shared willingly

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