



Background

The cost of processing manual orders continues to grow. With labor, health care and general overhead costs rising, it is becoming increasingly difficult to run a manufacturing business while continuing to process paper orders.

The concept of supply chain management has received a great deal of emphasis. Large manufacturing companies embraced this concept many years ago. Now, even smaller manufacturers are being forced to consider automation, specifically Electronic Data Interchange (EDI).

Tiers are often used to describe the typical supply chain. Here are some brief definitions:

Tier 1 – Typically the manufacturer or OEM

Tier 2 – Those who receive materials, parts and produce assemblies

Tier 3 – Those who supply materials or parts

Tier 4 – A distributor

Tier 5 - A wholesaler

Tier 6 – A retailer

The logistics of tiers 1, 2 and 3 began from established manufacturing practices. What might have been acceptable in the 20th century in terms of overhead can no longer be tolerated in the 21st century. Today's world of just-in- time, flow manufacturing, agile manufacturing and Internet-based communication is continuing to drive the need for improved manufacturing practices.

Tiers 4, 5 and 6 are typically generating purchase orders for the manufacturer. If the manufacturer has an in house sales force or utilizes manufacturer's representatives, the volume of purchase orders can be significant. This is where EDI becomes important.



Analysis

What does this mean for the small to medium-sized manufacturer?

Whether you use an internal sales force or manufacturer's representatives, there are considerable costs involved in the sales process. If you are a distributor or a wholesaler, the sales process can typically account for 80 percent of the costs associated with processing inbound invoices. Relying solely on manufacturer's representatives can reduce this number but your sales results may vary. By enabling your suppliers for e-business, you can stop key-entering invoices, reduce processing errors, and position your business to take advantage of improved technologies. Other gains come from lower procurement costs overall, faster order cycles and improved inventory management.

- Lower Procurement Costs Consider these figures. Analysts estimate that
 approximately 33 percent of all corporate spending is directed towards operating
 resources. The average manual order costs a company \$79 to process with
 half of that related to internal processing. On the other hand, companies that
 have successfully replaced paper-intensive processes with automated
 procurement systems integrated with financial and accounting systems have
 been able to cut purchase order processing costs by as much as 75 percent.
- Faster Order Cycles A second benefit of automating purchase orders results
 from reduced order cycles. In cases where purchase orders are able to flow
 directly from the buyer's procurement system to the supplier's order processing
 system, without manual intervention, companies have been able to reduce
 request to fulfillment cycles by two to five days. This, in turn, leads to lower
 inventory carrying costs, more accurate order processing and a reduction of
 expensive exception handling processes.
- Improved Inventory Management Limited visibility into supply and demand wreaks havoc on inventory management for buyers and suppliers alike.

 Automation gives buyers a powerful lens with which to view the extended supply chain and move closer to their goals of just-in-time production and delivery.



How To Improve

The fastest way of achieving lower operating resources and faster order cycles is to implement electronic order processing. If you have an in-house sales force, they need to be able to generate purchase orders that can be electronically submitted to your manufacturing system.

The order writing systems for sales representatives have been widely available for many years. The "best of breed" allow the file format of the electronic purchase order to be adapted to the requirements of the manufacturing system.

If your company works with manufacturer's representatives, they will not be eager to cooperate unless your proposed solution allows them to interface to all of their lines – not just yours. The sales person wants to be able to send and receive EDI data from all manufacturers from a single order writing system.

The key to success is to create a system that is open. It should be able to interface to your manufacturing system while allowing the capability of interfacing to disparate systems. This all has to be done while meeting your needs.

If you create your system with your existing IT staff, you can clear these hurdles easily. Alternatively, if you are looking for ready-made solutions, be certain that the vendor is open. The vendor should have considerable experience in dealing with a wide-variety of manufacturers. They should be able to send the electronic order file to you either as an email attachment or directly to your website (FTP). Ideally, they should be able to send the data as EDI transactions through a secure EDI network. They also should be able to accept your electronic invoices and Advanced Shipment Notifications (ASN's) so that your sales force recognizes shipped sales.

Depending on the effectiveness of your existing manufacturing system, you may have problems with duplicated stock numbers and/or UPC data. This may not have a serious impact to your business but it can wreak havoc for the sales force. Duplicated stock numbers can result in higher than average returns. Duplicated UPC numbers can only exacerbate the problem with scanners. In a typical showroom with scanners, hundreds or thousands of orders can have incorrect data. The top-rated vendors have the capability of detecting duplicate stock numbers **and** UPC data before they are distributed to your sales force.

Another aspect of electronic order processing that is frequently overlooked is the distribution of your product information to your sales force. A good system will have a reliable method of distributing your product data to your sales team. This is an essential aspect of any system. The order writing system needs accurate data to produce accurate sales orders.



Next Steps

The manufacturing process is complex enough without losing operational dollars to non-electronic processes. If your IT development staff can implement your solution, set your goals accordingly. Alternatively, if you need to find a technology partner, make certain that they have open standards. Be certain that the key features needed to operate your business are a standard feature.

Make sure that your vendor has the capability of working with your existing accounting system. The best vendors can tightly integrate EDI solutions with the top accounting packages (QuickBooks, Peachtree, MAS 90/200/500, Microsoft Business Solutions - Great Plains, etc.)

If you are using manufacturer's representatives, ensure that the systems vendor can accommodate their other lines. It will encourage cooperation and help to cement your long-term relationship for effective sales. Your manufacturer's representatives will benefit from your technology solution. They will be more productive. If you are using a scanning solution, your average order size will likely increase.



Summary

An EDI implementation can be painless and will save you money. EDI has been the answer for more than 25 years. If your competition isn't using it yet, they will be. The key is to move forward with a solution soon. The longer you delay, the more you are costing your operation.

<u>References</u>



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