

What is VMI?

By Carl Hall

VMI is a process where the supplier generates orders for the distributor based on demand information sent by the distributor. During this process the supplier is guided by mutually agreed to objectives for inventory levels, fill rates and transaction costs. There are two EDI transactions at the heart of the process. The first is the Product Activity Record, frequently referred to as an 852. The data contained in this document are sales and inventory information. The inventory data is typically segmented into various groups such as on hand, on order, committed, back ordered and so forth. This transaction is the back bone of VMI and is sent by the distributor on a prearranged schedule, typically, daily. The decision to order is based on this data.

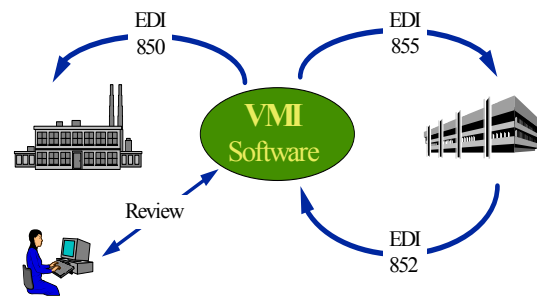
The business process fed by this data is relatively simple. The manufacturer reviews the information that has been sent in by the distributor on the 852 to determine if an order is needed. This review of the data varies by supplier and the software being used, but, many things are consistent.

- The first step is to verify the data as accurate and meaningful. Depending on the software, much of this verification is automated.
- On a scheduled basis, the software calculates a reorder point for each item based on the movement data and any overrides contributed by the distributor or manufacturer. These overrides might include information such as projects, seasonality, new items and so forth.
- The VMI software compares the quantity available at the distributor with the reorder point for each item at each location. This determines if an order is needed.
- The order quantities are then calculated. Typically calculation of order quantities takes into account such issues as carton quantities and transaction costs.

This completes the order build process.

The second VMI transaction informs the distributor what product to expect from the manufacturer. There are two transactions being used for this function. The most frequently used is the purchase order acknowledgment, referred to as the 855. This document contains the product numbers and quantities ordered by the supplier on the distributor's behalf. A few distributors skip the 855 and rely on the advance ship notice (856) to alert

them to the order and shipment. This document differs from the 855 in both timing and content. The 856 is sent after the shipment has been made instead of at the time of the order. The 856 contains only the part numbers shipped as well as additional information such as carrier and waybill information. For the purposes of VMI, either of these documents work well if properly implemented.



Benefits

The process laid out above is not significantly different from the standard practice today. So, what's the big deal? Why is this better than the distributor ordering themselves? To understand why, let's look at each benefit advertised by the parties doing VMI.

Lower Distributor Inventories is the benefit most people name first when they discuss VMI. In my experience, distributor inventory turns frequently double under a VMI relationship. The real question is why. Under VMI, the supplier is able to control the lead time component of order point better than a distributor with thousands of suppliers can ever hope. Additionally, the supplier takes on a greater responsibility to have the product available when needed, thereby lowering the need for safety stock. Finally, the manufacturer reviews the information on a more frequent basis which also lowers the safety stock component. These three factors combine to significantly lower inventories.

Lower supplier inventory from better forecasts are achievable, but there are two caveats. The first caveat that better forecasts do not result from sharing information about normal turn business. Better forecasts result from having a more forecastable demand. Under VMI, the orders created for the distributor more closely match the

true demand in the marketplace. That demand is reflected in more frequent orders for the same parts and therefore lower variability of demand on normal turn business. At the same time, better communication of exceptional demand is required in a VMI relationship. This results in the manufacturer seeing the exceptional demand, such as project work or promotional demand, earlier than under the traditional relationship, improving their ability to forecast those bumps.

The second caveat is that better forecasts are only attainable if a substantial percentage of the business is handled via VMI. Most manufacturers are not able to lower their inventories with VMI today because VMI represents too small a percentage of their overall business. However, the smoothing of demand brought by VMI is potentially the largest benefit for suppliers engaging in VMI with a significant portion of their business.

Lower Administrative Costs accrue to both parties. The benefit to the distributor is easy to see. The distributor spends less time ordering. In addition to this, both parties spend less time following up on bad order information correcting orders for non-shippable parts or quantities, and reconciling differences between orders and shipments. This benefit can be traced to a better, more frequent flow of information. If the supplier changes carton quantities, the next order created by the manufacturer will reflect those quantities. If the distributor changes a catalog number by mistake, it will show up on the next 852 before it needs to be ordered. This allows the manufacturer time to correct the problem when it occurs instead of allowing it to build up costs. Lower administrative costs can be a substantial piece of the VMI benefit for both parties.

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Carl has worked in a variety of industries including consumer packaged goods, electric components, automotive and fresh produce. Previously, Carl had worked with IBM, where he held various positions in parts distribution until he moved to a marketing position, where he assisted Procter & Gamble with their design and strategy of vendor managed inventory.

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Increased sales are the most exciting VMI benefit. Both manufacturers and distributors see their sales increase from VMI. The most obvious cause of increased sales is better inventory placement resulting in fewer out-of-stock situations. The manufacturer has information about the use of their products, the overall marketplace, as well as coming industry-wide events that allow them to direct the inventory investment to the right products. This knowledge, when combined with frequent communication about specific geographic marketplace issues communicated by the distributor, results in higher sales per dollar of inventory investment.

In addition to the sales increase from having the right part at the right place at the right time, many distributors reinvest some of the savings from inventory reduction and administrative savings into building their business. This investment can fund lower end user prices or a broader selection of product. This investment increases business for both parties.

Summary

Trading partners who focus on the changing business relationship can maximize their benefits. Under VMI, manufacturers and distributors can both recognize and focus on the same issue: how to sell more product to the end user more efficiently. This changes the manufacturer's focus from how to get the distributor to buy more to how to help the distributor sell more. This change in relationship is the most exciting feature of VMI.

In conclusion, the benefits of VMI are due to the increased information flow between the distributor and manufacturer. This information needs to be part of the day to day process for all parties in order to assure the quality and freshness of the data.