# Vendor Managed Inventory (VMI)

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VMI is a business model in which the buyer of a product provides certain information to a supplier of that product and the supplier takes a much greater or complete responsibility for maintaining an agreed inventory of the material, usually at the buyer's consumption location (usually a store but often times a factory or warehouse). A third party logistics provider can also be involved to make sure that the buyer have the required level of inventory by adjusting the demand and supply gaps. Typically in Retail, the information provided to the seller is in the form of an EDI 852 document.
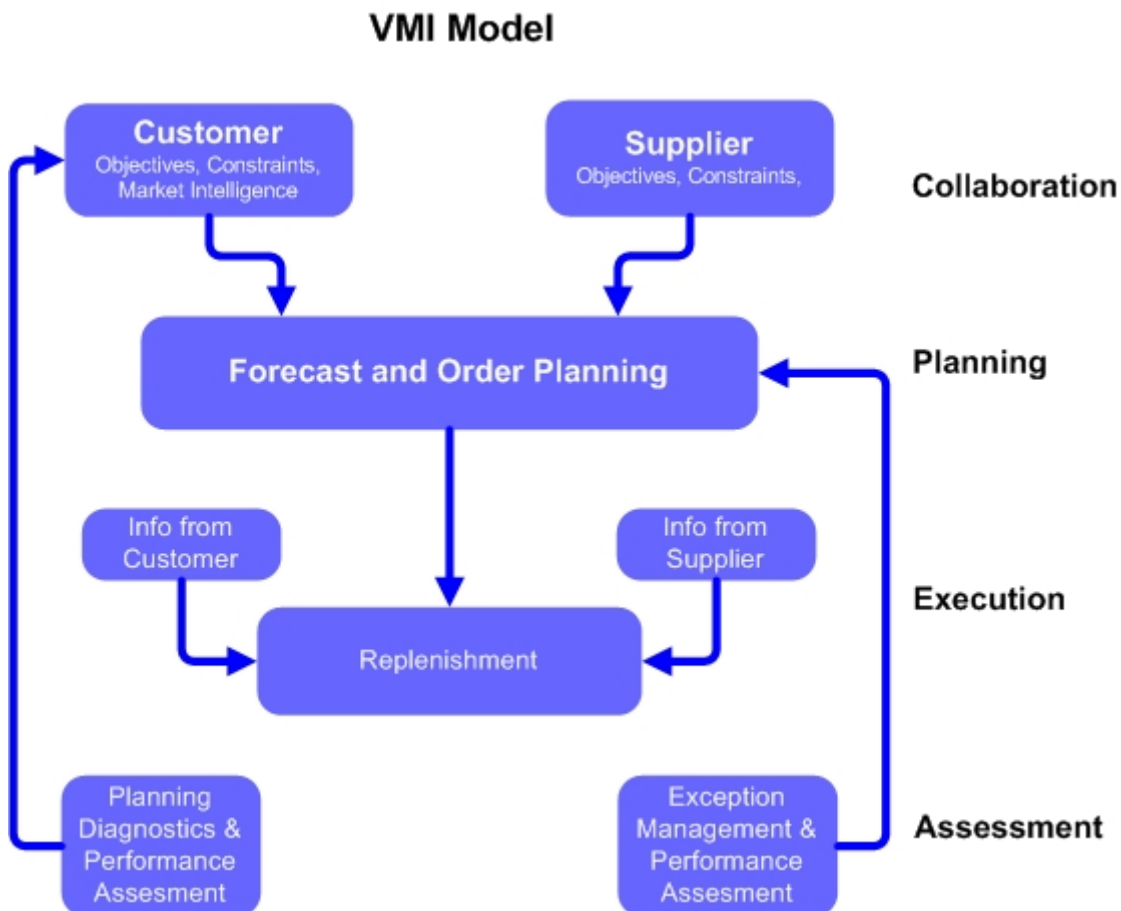
VMI Model

As a symbiotic relationship, VMI makes it less likely that a business will unintentionally become out of stock of a good and reduces inventory in the supply chain. Furthermore, vendor (supplier) representatives in a store benefit the vendor by ensuring the product is properly displayed and store staff, are familiar with the features of the product line, all the while helping to clean and organize their product lines for the store. One of the keys to making VMI work is shared risk. Often if the inventory does not sell, the vendor (supplier) will repurchase the product from the buyer (retailer). In other cases, the product may be in the possession of the retailer but is not owned by the retailer until the sale takes place, meaning that the retailer simply houses (and assists with the sale of) the product in exchange for a predetermined commission or profit. A special form of this commission business is scan-based trading whereas VMI is usually applied but not mandatory to be used.

This is one of the successful business models used by Wal-Mart and many other retailers. Home Depot uses the technique with larger suppliers of manufactured goods. VMI helps foster a closer understanding and collaboration between the supplier and distributor or Retailer by using EDI, statistical methodologies to forecast and maintain correct inventory in the supply chain. Vendors benefit from more control of displays and more contact to impart knowledge on employees; retailers benefit from reduced risk, better store staff knowledge (which builds brand loyalty for both the vendor and the retailer), and reduced display maintenance outlays.

In today's retail industry, it would be impossible to automate a VMI implementation – or have one even somewhat close to accurate without an EDI system. That said, hundreds of companies run very successful VMI programs using the following types of EDI services:

- In-house EDI
- Hosted EDI (SaaS, ASP, etc...)
- Service Bureau
- Hybrid portals

VMI is a document intensive replenishment system. The amount of data included in some 852 documents can be tremendous, but the resulting data can be much, much larger. Consider this scenario:

1. You receive a series of 852 documents from your trading partner on Sunday night. These reflect the previous week's sales for all of that retailer's stores.

2. Using specialty application/service or by whatever means, create your sales orders (Internal docs) from those 852's.
3. You may be required by your TP to send 856 documents (Per store).
4. You may be required to send back 810 documents (Per store).

The point is one 852 receive, can, and typically does result in a large outlay of additional documents depending on your program and trading partner. In many cases the program will require 855's to go back from supplier prior to sending the 856. This is a sort-of heads up to the Retailer "Hey, we go the data, here is what we are going to ship" In addition to other details. Still in other scenarios, Hosted providers because of system design have to 'fake' a PO in their system (From 852 data) before they can create an 856 or 810 document.

The 852 is a powerful document derived from POS (Point of sale) data obtained at each store. Here is a list of EDI documents which are often included in a VMI relationship.

852 - Product Activity - sent by the Retailer

This document tells the manufacturer the distributor's (Retailer's) inventory and level of activity per product. The standard 852 only transmits a "change" since the previous transmission. An all item refresh sends every field for every item this is often not done with the 852, but instead performed with semi-annual and annual inventory counts at the store or warehouse level.

The section directly below lists out the common attributes or information carried in various 852 documents. Most retailers will not include all of them.

Attributes:

- Quantity Available (QA): Distributors Current Inventory Available
- Stock Type (QA-reference segment): "P" = Managed, "N" = Non-Managed
- Quantity on Order (QP): The Distributors Backorder with the Manufacturer
- Quantity Damaged (DG)
- Adjustment to Inventory Quantity (QT)
- Quantity Transferred (QZ)
- Calculated Reorder Point (PO)
- Quantity Out of Stock (QO): Distributors Backorder to their End Customer
- Quantity Sold (QS): Total Volume Sold since the last Transmission

- Frequency(QS): Number of Sales that makeup the Total Volume
- Quantity on Hold (HL)
- Lost Sales (LS)
- Planned Order Quantity (OQ)
- Quantity Committed (QC)
- Additional Demand Quantity (QD)
- Quantity in Transit (QI)
- Minimum Inventory Quantity (QL)
- Maximum Inventory Quantity (QM)
- Quantity Received (QR)
- Quantity Returned by Customer (QU)

850 - Purchase Order

This is a conversion of what should be a on a store shelf compared to the activity included in the 852 document (Forecast amt +safety stock – EDI 852 activity = PO qty). This communicates the items to be ordered.

855 - Purchase Order Acknowledgement – sent by the Supplier

This is sent by the Seller (Seller) to the Buyer (Retailer) to acknowledge an order.

856/857 - Advanced Ship Notice - sent by the Supplier

This is sent by the supplier before the shipment leaves the Supplier's shipping dock. It informs the retailer of the contents of the shipment and any additional information relating to the shipment.

861 - Receipt Advice - Sent by the Retailer

The 861 communicates what the Retail received in the shipment.

810 - Invoice - sent by the Supplier

An electronic invoice

820 Payment/Remittance Advice - sent by the Retailer

Tells the supplier which Invoices were paid on which checks.