

Vendor Managed Inventory (VMI) Making it a Win-Win – for Suppliers and their Customers

By: David Burch

Introduction

Most large retailers that we meet with have a very unhappy history with their suppliers. It is no wonder that they only trust a handful of suppliers to be successful with a VMI approach. In Vendor Managed Inventory, trust is essential because the customer no longer places orders for stock items. The vendor is supposed to track the customer's consumption of the stock, and automatically replace stock as necessary, ensuring that the customer runs out much more rarely.

When correctly implemented, there are, in fact, significant advantages in VMI programs not only for the customer but for the supplier as well. However, what typically blocks a VMI implementation is that customers worry about the vendor living up to their commitments. If a vendor does not already have close to a 100% service level without VMI, how can the customer trust them and just wait for the vendor to deliver? If the vendor does not have a perfect track record, what makes a vendor think that they will do better under a VMI model?

In this article, we address these issues from both the customer's and the supplier's points of view. We will also describe what a successful VMI model should have, to provide both the assurance to the customer and the system's approach for the vendor to succeed.

Why Vendor Managed Inventory?

Inventory turns, increased sales, customer service levels and supply chain costs are the key performance indicators of a successful supply chain. Superior supply chain management yields improvement in all areas. Furthermore, the smartest companies in many industries realize that competition is no longer about Company A fighting Company B. It is more and more about supply chains competing with each other. Therefore, improvements must be beneficial and attainable by all links in the supply chain.

VMI programs, with the correct metrics and logistics, provide exactly that. Here we look into how each partner in a Vendor Managed Inventory relationship makes more money by reducing cost, improving service, increasing turns and increasing sales.

Cost Reduction

The volatility of demand is one of the key problems facing most supply chains. Customer service and product revenues are eroded by unanticipated demand fluctuations. As a result, when a company has too much stock and loses a large amount of money due to write-offs or markdowns, top management demands more efficient operations.

Procurement departments, often measured on cost reduction, are frequently caught in a huge conflict. To get the best deals, they want to buy large orders. By having more stock, they also satisfy sales and customers. Yet with demand uncertainties, purchasing

departments are also blamed for the exposure to obsolescence and markdowns. Suppliers often see confusing or temporary policies governing ordering patterns, conflicting performance measures, buyers acting in isolation, product shortages and, at the very same time, excess inventory – all of which add up to increased cost.

A vendor cannot offer an effective VMI program unless such confusion and policy issues are permanently resolved in partnership with their customer. A vendor must have their own manufacturing and distribution logistics working perfectly, but perfection does not mean a totally predictable environment. Therefore, the range of inventory levels required to meet the conflicting needs of customer service levels vs. minimum obsolescence and minimum carrying cost must be agreed upon.

Performance Measures

Month end inventory levels and customer service levels are both key performance indicators for buyers. In order to keep high customer service levels, we have seen buyers who keep excessive inventory to buffer against stock outs and demand fluctuations. Conversely, buyers are also measured on how much inventory is in the system and how long it takes to convert the inventory to revenue. How can you measure performance when the performance goals are contradictory?

To “beat” the performance measure, in an actual case, buyers stock up in the beginning of the period to ensure high scores on customer service. At the end of the period, the same buyers hold orders and reduce stock to score high on inventory goals. Since consumers do not stop buying at the end of the measurement period, the reduction of inventory levels is often accompanied by poor service levels.

To resolve this dilemma, VMI must find a way to reduce the amount of inventory needed to maintain high levels of customer service. But this is not sufficient. A vendor who has this confidence should be willing to **guarantee performance, by paying penalties** when stock-outs occur beyond the agreed upon service level. Otherwise, supplier commitments are about as useful as political promises during an election campaign.

Of course, even guarantees are not enough. The supplier must have a replenishment system to back up the guarantee. Such a system needs to monitor inventory on the customer site, on order to manufacturing, and in transit to the customer. Only with such a buffer management¹ system can a supplier take full responsibility for replenishment, maintenance, and improvements in service.

Another essential ingredient of a VMI system is frequent monitoring of actual consumption across the supply chain. Any VMI system that replenishes DCs or retail locations based on a min/max approach is doomed to either fail frequently or produce mediocre results.

Uncertainty of Demand

Consumer buying patterns are erratic, especially at the retail level. Retail buyers not only have to deal with erratic consumer buying but management policies and procedures for replenishment orders. Order minimums, economic order quantities, quantity discounts, and demand uncertainty often lead to infrequent ordering patterns with large order

¹ See the David J. Burch article on how IDEA buffer management works, available as a download from www.ideallc.com



quantities. Such orders add more uncertainty that force suppliers to maintain excessive finished good inventories to ensure responsive customer service.

The uncertainty of demand is mitigated by a VMI system based on buffer management. Increasing the order frequency from the point of consumption to weekly or daily gives much more accurate information to the production process. With earlier warning of what is happening in the supply chain consumption, the plant has more time to plan and execute. Production peaks and valleys are made smoother, with smaller buffers of inventory necessary to control and increase customer service. At the same time, the data intelligence decreases the need and cost of expediting in the plant. The customer benefits from legitimately lower stock levels, while the end consumer experiences fewer stock outs.

Buyers Acting in Isolation

In retail, buyers rarely have time to work together and coordinate ordering functions. Sometimes, multiple distribution centers place separate orders to the same supplier. Since buyers are probably on the same schedule, large, infrequent orders happen simultaneously making it difficult to fulfill orders and schedule production.

With VMI, the vendor has visibility of consumption at all locations. Thus the vendor provides smooth production and fulfillment, while simultaneously helping the buyer meet both customer service and inventory turn metrics.

Transportation Issues

Under the old scenario, the vendor is shipping, for example, a truckload every week to a given customer location. Today, the truckload consists of one or relatively few SKUs, since the buyer is ordering large quantities infrequently.

Under the new scenario, the vendor will still deliver one truckload every week, but it will contain smaller quantities of a greater variety of SKUs. Under a VMI approach, the vendor is responsible for keeping items in stock. Therefore, the vendor must abandon filling containers with the same SKU.

The vendor can experience an increase in handling costs to process more SKUs per truckload. In some cases, the vendor may even increase the frequency of shipments. However, a pilot with randomly selected SKUs can prove how much benefit the vendor and their customer will receive in increased sales due to availability and decreased carrying and obsolescence costs due to lower average inventory levels.

Implemented properly, the supplier schedules and coordinates the re-supply process, instead of producing and shipping orders as received. A good VMI system results in far fewer emergency orders. The supplier now has control to increase full truckload shipments, reducing more costly less than truckload shipments. The supplier can also choose more efficient routing and replenish multiple customers with the same equipment. Distribution centers often realize the benefits of less sporadic labor and space needs.

Customers benefit from quicker replenishment cycles and increased inventory turns (not just low end-of-month inventory balances) while service levels improve. Buyers are rewarded as their key performance goals are met. Vendors can often make use of the cash



that is freed up to produce and distribute additional items, with even greater satisfaction provided to their customers.

Service Improvements

Everything else aside, every link in the supply chain gains from improved service. Customers get what they want and they continue to buy. Retailers don't miss sales opportunities and gain customer loyalty. Retailers favor the best suppliers with more shelf space. With more shelf space and less excess inventory, there are less shortages and a broader product array, earning increased sales. Improved service is a win-win situation.

Without VMI, the supplier has difficulty prioritizing customer shipments. Orders are placed and shipped in accordance with the customer's instructions. The supplier is unaware of the priorities; orders are simply shipped to meet due dates. With VMI, the supplier ships to its customers' availability. As customers convert to VMI, the supplier coordinates replenishment orders and deliveries across multiple customers to help improve service. With greater coordination of consumption data, the supplier can juggle non-critical and critical deliveries for multiple customers. One shipment can be postponed due to low consumption to fulfill another with high consumption, without impacting customer service levels of either customer. Customers benefit from the assurance that critical needs get the most attention.

Replacement product transition can be facilitated with Vendor Managed Inventory. Fewer inventories in the system mean that there are fewer inventories to flush out when there is a change or an update to the product. The customer can avoid drastic measures like "fire sales." New product is on the shelf sooner. Shared information helps to streamline the process and controls obsolete inventory.

Without VMI, shipments are sometimes rejected by the DC due to communication gaps between the DC and centralized buyers. Overcrowding at the DC due to inbound and outbound traffic intensifies the problem. With VMI, the supplier typically schedules replenishments and deliveries in advance to ensure predictable delivery schedules.

When Does Vendor Managed Inventory Make Sense?

Answer the following questions:

- 1) Does your customer's consumption have a high degree of unpredictability?** In order to compensate for the unpredictability of demand, replenishment time, and "Murphy" (unexpected events), you as well as your customer probably keep high levels of inventory.
- 2) Do you replenish individual SKUs less than every 3 weeks?** Large infrequent orders create expensive peaks and valleys in the production schedule, with large shipments and inventories seen throughout the supply chain.
- 3) Is meeting and sustaining high service levels critical for your survival?** If you cannot perform to the expected levels, your customer will reduce the amount of shelf space allocated to you or will drop your product line entirely for another supplier.
- 4) Do you have unacceptably high levels of shortages, while simultaneously having high levels of obsolescence and/or markdowns?** Long replenishment times make it



impossible to keep orders flowing efficiently. At the same time, long replenishment times demand inventory to compensate for fluctuations in demand.

When do you need Vendor Managed Inventory? If you answered yes to more than one of the questions above, look into VMI.

Components of a Good Vendor Managed Inventory Solution

These are essential elements of any VMI solution, to drive positive results:

- Vendor has the ability to monitor inventory on site, on order and on the way.
- Vendor's solution provides early warning to take action, even when large amounts of inventory are on order or on the way. (Note that inventory on the way or on order will still cost lost sales, if insufficient inventory is on site.)
- Vendor automatically adjusts inventory buffers due to changes in end consumer demand.
- Customer supplies consumption data frequently (preferably daily).
- Vendor is willing to guarantee results, by paying penalties for stock-outs.
- Both the customer and the vendor have visibility of all inventories in the supply chain they control.
- The customer trusts the vendor to deliver necessary inventory on time to improve results beyond current levels.
- Results are measured not only in cost improvement but in increases in sales.

IDEA'S WAY OF THINKING

- *Neither an accurate forecast nor changing vendors is required for success*
- *There is a way to both increase sales and reduce inventory*
- *Supply chains sell less when clogged with inventory*
- *In the long term, unless the supply chain sells more no link can sell more*
- *We must help clients gain buy-in internally and with supply chain partners*
- *The majority of our fees are based on improved return on inventory*

IDEA'S METHOD

- *Verify the existence of inventory imbalances and the benefits of moving from a "Push" to a "Pull" system*
- *Gain top management buy-in to the assessment and support of the approach*
- *Build knowledge and understanding across the supply chain, at all levels*
- *Utilize systems that deliver actionable information, integrated with existing software*
- *Work with you until expected results are achieved*
- *Share the tools and know-how to continually improve results*

IDEA, LLC

Contact: Tom Demuth, President

TomDemuth@ideallc.com

