

Barriers and Benefits of Vendor-Managed Inventory Solutions in the Life Sciences and Pharmaceuticals Industry



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Introduction

Third-party logistics (3PL) providers specialize in maximizing their customers' supply chain processes. In recent years, 3PLs have innovated their practices to extend the pharmaceutical supply chain for special projects, such as packaging and kitting. Vendor-managed inventory (VMI) is a natural evolution of these extended services.

VMI quickly gained a foothold with retail companies, but has failed to catch on as quickly in the life sciences and pharmaceuticals industry. This white paper will introduce the concept of VMI and make a case for VMI as a cost-saving, quality-ensuring life sciences and pharmaceuticals supply chain solution.

What is VMI?

Definition

Vendor-managed inventory (VMI) is a supply chain management initiative where the distributor is authorized to oversee product inventory¹.

In VMI, the distributor assumes the role of inventory planning for the customer. Instead of the customer reordering when supply is exhausted, the distributor is responsible for monitoring and replenishing the customer's stock².

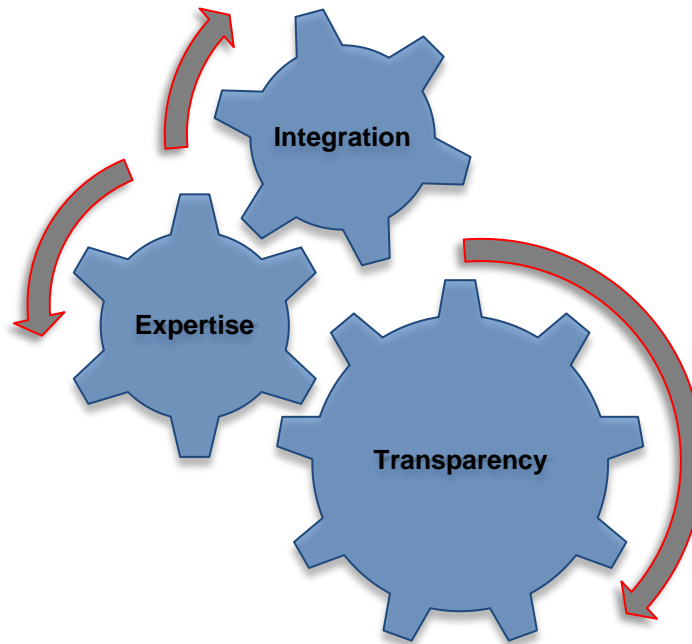
This approach is meant to optimize supply chain performance, since the distributor can analyze demand and adjust supply in order to maintain the customer's inventory levels.

Traditionally, 3PL providers implemented VMI solutions downstream in the supply chain. The role of the 3PL was to receive a customer's product and then manage inventory and distribute from their locations. To do this, the 3PL would incorporate the customer's business practices, processes and infrastructure to oversee and conduct the distribution.

Now, several 3PLs have started taking VMI upstream into the supply chain by insourcing their VMI practices within the four walls of a customer's operation. This is done by either offering value-added services, such as kitting or holding inventory onsite to be closer the customer's manufacturing facility. By bringing value-added services to the customer, the 3PL provider saves them the time and costs associated with moving inventory to a second location. Onsite or local storage allows the customer to pull inventory as needed, while only paying for inventory consumed; this reduces the customer's investment and maximizes cost-efficiency³.

Implementation

A fluid and effective VMI solution requires the following three elements to work together:



Integration:

Incompatible Enterprise Resource Planning (ERP) and Warehouse Management System (WMS) software can cause costly inefficiencies and make it difficult to anticipate and manage inventory levels. The best 3PL providers offer robust information technology services that have the power and flexibility to seamlessly integrate their WMS with customers' ERP applications.

Transparency:

Fully integrating a customer's supply chain requires complete high level transparency that is built on a foundation of trust. With this enhanced view of a customer's supply chain, the 3PL provider is able to accurately monitor demand and proactively supply inventory.

Expertise:

Setting up and integrating the systems necessary to capture data is the first step of the process. The crucial next step requires professional analysis in order to isolate trends that impact order volume and inventory levels. With this information, 3PL providers can accurately project demand and manage inventory.

VMI in the life sciences and pharmaceuticals industry

Pharmaceutical supply chains are strictly regulated and require an extraordinary degree of oversight. These necessary controls can obscure supply chain

visibility, thus making it difficult to anticipate inventory levels, and also lessens a customer's ability to respond to fluctuating order volume.

When conducted with full transparency and proper expertise, VMI solutions offer the ability to anticipate demand in real-time and adjust supply levels accordingly. This presents an opportunity for the pharmaceutical area, since many products are either costly or outdate quickly.

Despite this advantage, the life sciences and pharmaceuticals industry has experienced a significantly lower rate of adoption than the retail area. Why are companies afraid to take the leap?

The barriers and benefits of VMI

Retail giant Wal-Mart revolutionized the concept of VMI as a cost-saving inventory management technique. Since then, retail companies have scrambled to adopt this model. However, the life sciences and pharmaceuticals industry has been slower to adopt this fluid management practice for several reasons, including:

The life sciences and pharmaceuticals industry lacks the driving force seen in retail. As a product's velocity increases, so does the need for a VMI solution. Many life science and pharmaceutical companies don't produce fast-moving product, which means they don't recognize the cost-savings VMI solutions offer.

The life sciences and pharmaceuticals industry is historically slower to adopt emerging trends. This reluctance is due to the sensitive nature of the pharmaceuticals, as well as strict biological regulations.

Incompatible inventory management systems make it difficult to achieve the necessary level of transparency. The ability to seamlessly exchange information electronically is a crucial component of successful VMI solution.

An experienced and knowledgeable 3PL provider can help life sciences and pharmaceuticals customers overcome these hurdles and adopt VMI as a supply chain management practice. There are several benefits to be recognized as a result of this solution:

Supply chain visibility

Integrated systems and consistent oversight allows for real-time analysis of inventory levels. With this information, 3PLs can quickly and efficiently anticipate needs and customers have unprecedented insight into their supply chain.

Reduce unnecessary overstock or stock out situations

Overages and shortages hurt the bottom line. By constantly monitoring order volume and projecting anticipated demand, 3PL providers can mitigate these costly inefficiencies.

Efficient product rotation

Careful inventory oversight allows 3PL providers to quickly move product that will soon outdate, while keeping stock levels fluid and responsive to demand.

Minimizing risk

Precision is key when handling sensitive and expensive pharmaceuticals. Through transparency and careful analytics, 3PL providers utilizing VMI solutions maximize order precision, thus preventing unnecessary handling and overstock of these expensive pharmaceuticals.

Conclusion

VMI as a supply chain management solution can enrich and solidify the relationship between a 3PL provider and its life sciences and pharmaceuticals customers. As a [nationally recognized](#) 3PL partner, MD Logistics offers [robust services](#) that offer customers these cost-saving solutions that enrich their storage, distribution and transportation initiatives.

Resources

1. "Stock Replenishment and Shipment Scheduling for Vendor-Managed Inventory Systems" from Management Science
<http://pubsonline.informs.org/doi/abs/10.1287/mnsc.46.2.217.11923>
2. "Vendor Managed Inventory (VMI): Three Steps in Making It Work" from The Supply Chain Resource Cooperative <http://scm.ncsu.edu/scm-articles/article/vendor-managed-inventory-vmi-three-steps-in-making-it-work>
3. "Supply Chain Perspective: Lean Thinking and Vendor Managed Inventory Programs" from Supply Chain Digest
http://www.scdigest.com/Assets/Experts/Lean_Thinking_08-08-21.php?cid=1869