What is Lean Inventory Management?

More firms are implementing lean inventory management techniques to reduce costs, improve flexibility and have more time to focus on their customers.

iCepts

Presented by iCepts Technology Group, Inc. www.icepts.com

For the Distribution Industry
What is Lean Inventory Management? What techniques are applied to make it successful?

More firms are implementing lean inventory management techniques to reduce costs, improve flexibility and have more time to focus on their customers. Lean supply chain and inventory management enable Small Medium Businesses (SMB) to improve efficiency and increase profits. As firms look to reduce waste, increase turns and be more flexible with their inventory, management professionals have attempted to identify how lean techniques can be adopted to build flexible and collaborative inventory.

Current references like APICS (American Production Inventory Control Society) shows that nearly 30 percent of companies are adopting lean principles in their inventory management.

“Lean” refers to a systematic approach to enhancing value in a company’s inventory by identifying and eliminating waste of materials, effort and time through continuous improvement in pursuit of perfection.

Lean management movement is credited to Henry Ford, who in the 1920s applied the concept of “continuous flow” in the assembly-line process. Over the years, the concept has been modified and applied to nearly all industries.

Lean inventory management techniques are built upon five principles:

- **Value**: Define the value that your company will get from lean inventory management.
- **Flow**: Understand how inventory flows in your warehouse and apply Lean principle: 5S to clear any obstacles that do not add up.
- **Pull (Lean principle: Kanban)**: Move inventory only when requested by customer.
- **Responsiveness (Lean principle: Kaizen/Continuous Improvement)**: Being able to adapt to change.
- **Perfection (Lean principle: Six Sigma)**: Continuously refine your inventory management processes to improve quality, cycle time, efficiency and cost (Six Sigma: DMAIC).

In the 1980s, the concepts of Total Quality Management (TQM) and Six Sigma that were advocated for by W. E. Deming and Bill Smith respectively were reintroduced to US businesses. Lean inventory management uses the concepts of TQM and Six Sigma to eliminate. The result is usually reduction of costs and improvement in quality. Value Analysis (VA) can be used to reduce costs and retain quality. Six Sigma uses Voice of the Customer (VOC) techniques, the result is going beyond the customer’s expectations.

Lean management is a combination of a set of tools, philosophy and a system.

As a tool, companies can use the principles to select the right technique or methods to improve what needs improving.

As a philosophy, lean management emphasizes minimization or elimination of excesses on all resources used in various operations of the enterprise.

As a system, companies can use lean management to lower their costs, and improve customer satisfaction. The success on any lean inventory management depends on how a company best implements the principles to achieve its needs. The greatest benefit of the principles comes in identifying its key attributes and applying them across functional boundaries.

**Attributes of Lean Inventory Management**

Building and maintaining a lean inventory management revolves around six main attributes: These are:

- **Demand management**: Providing inventory when requested by the customer. For effective demand management, companies need to plan their sales and operations, check the inventory management practices, demand signal and demand collaboration.

- **Costs and waste reduction**: While lean inventory management may appear to focus on reducing waste and cost, this should only be the case to the extent that it does not have a negative impact on customer value.

- **Process standardization**: This enables continuous inventory flow in the company. Some inhibitors like transportation, batch processes and work in queue can slow down inventory delivery.
**Industry standardization:** Process and product standardization among tradition partners can still lead to waste, especially when common components are not optimally standardized. While standardization may enhance service delivery and benefit customer using the products, it also decreases the proprietary nature of a product, making other competitive factors more important.

**Cultural change:** Inventory partners, from suppliers to customers, must work as a team to provide value to the end user.

**Cross-enterprise collaboration:** Cross enterprise collaboration through use of teams can help in defining value and understanding the value stream to maximize the added value delivered to the customers.

The benefits of adopting lean inventory management practices are clear: reduced stock keeping unit (SKU) counts and inventory levels, increased use of standards in processes and materials, improved collaborations and a general reduction in cost of goods sold when compared to companies that do not use lean principles. A lean supply chain and inventory management contributes to the bottom line.