

# Strengthening Your Organization With an Integrated Advanced WMS

Thu, 06/29/2017 - 9:15am

by Jack Payne, VP, Product Management & Solutions Consulting, Aptean

Food and beverage manufacturers are under constant pressure to balance the constraints of time, money and personnel. These constraints affect both the manufacturing and distribution functions.

An Enterprise Resource Planning (ERP) system offers basic warehouse management capabilities that all manufacturers have implemented to one degree or another. As the manufacturer grows and expands its reach in terms of products and customers, the resource constraints it faces become greater and more intense. As customers and products are added, the manufacturer's Supply Chain Management challenges increase, leading to the need for a more sophisticated Warehouse Management System (WMS) solution. Computerized support is needed for advanced WMS capabilities, such as directed put-away, stock rotation based on "Best Before" dates and optimized picking, while supporting the ultimate goal of 100 percent sales order fulfillment.



An Advanced WMS (AWMS) solution becomes "must-have" technology for the food and beverage manufacturer looking to become a market leader. Oftentimes, manufacturers take the first step and procure a "stand-alone" WMS for the distribution side of the business, which only solves part of the problem. Only by integrating the WMS to the existing ERP solution can the true benefits of improved visibility, traceability and productivity be fully achieved. This integrated WMS becomes the AWMS that provides the foundation for becoming the market leader within their vertical.

## What Do I Have?

Inventory is the backbone of any food and beverage manufacturer's supply chain. An AWMS provides accurate, real-time visibility of inventory, helping reduce the loss of product due to expiration. This is done by balancing the needs of customers who require same day shipments (captured in the ERP system) with the efficient rotation and shipment of short shelf life products (managed within the WMS). The AWMS provides the central repository for the critical information needed by supply chain managers, giving them full visibility into not only future demand, but pending deliveries thus reducing the likelihood of overstocking product.

The AWMS also allows the organization to optimize the use of storage areas and bin locations within the distribution side of the manufacturing warehouse. A more efficient and better-utilized finished goods warehouse can eliminate the need for costly third-party outside warehouses. This shortens the cycle times for sales order fulfillment as orders are shipped within the manufacturing company. The AWMS also manages product storage by using rules-based put away and picking tailored specifically for the facility. A better-organized warehouse not only yields space savings, but proper storage reduces the inadvertent exposure to potential allergens. Finally, the AWMS provides employee-level warehouse productivity feedback that leads to faster put-away and outbound trailer loads. In short, implementing an AWMS leads to not only more accurate and better-managed inventory, but also lower distribution costs, increased profitability and better customer service.

## **Where Did It Go?**

The Food Safety Modernization Act (FSMA) and other industry regulations have made faster and more accurate product traceability and recall capabilities a condition of doing business. Under FSMA, the Food and Drug Administration (FDA) has the authority to order a mandatory recall on demand.

Most ERP systems installed in food and beverage companies can support the voluntarily recall of products when required. However, the ERP system may not have full visibility throughout the supply chain. With an AWMS, product recall capabilities extend both upstream to the supplier, who may be planning to deliver more of the suspect lot (visible on the inbound advanced ship note), and to the company-owned distribution center that is holding the balance of the finished good lot. The AWMS maintains the detailed history of every movement from raw material arrival through finished good shipment. This central system becomes invaluable during product recalls — when a company must know quickly what products from which dates and at what locations need to be returned.

In addition, the FDA requires that all lot numbers affected by a recall be transmitted to their offices within 60 minutes of the request. Electronic reporting within the AWMS makes dramatically reduces the risk of noncompliance.

## **How Well Do I Operate?**

Implementing an AWMS can improve labor efficiencies within the warehouse by measuring and reporting on individual task (put-away, location moves and sales order picks) within the warehouse. The AWMS provides advanced forms of task management, including selecting the next best activity for an employee to perform based on user-defined factors. The AWMS coordinates warehouse activity by matching personnel capabilities (type of forklift they can run) with the priority of the work (high pick versus low pick) to be done. The AWMS also holds location intelligence, allowing physical proximity to be factored in when assigning tasks in a specific order and to a specific worker. The larger the facility, and the more tasks in the queue, the greater the potential of productivity improvements driven by the AWMS.

Implementers of an AWMS normally see annual warehouse labor cost reductions of up to 30 percent as quicker processing times lead to increased productivity. In many cases, long-term productivity is further enhanced through post-implementation changes to the layout and flow of the warehouse based on analytic data from the AWMS. Process

changes in put-away, location moves and sales order picking lead to more efficient use of equipment through more efficient routing of forklifts through the facility. Once the AWMS is in place, advanced technologies such as voice-directed task management may be implemented, further decreasing the amount of error-prone manual and paper-based processes.

But the best gauge of the benefits of implementing an AWMS is how well the business operates in terms of customer satisfaction. With narrow delivery windows, even minor missteps and miscalculations can have major service level consequences. The AWMS reduces human errors, ensuring that the products a customer orders are not only in stock but have sufficient remaining shelf life. The AWMS organizes sales orders within the ERP system while tracking shipments made within the WMS. The AWMS keeps the customer in the loop by sending automated notices as to sales orders status to include the tracking number of the shipment so that proper delivery expectations are set and met. These connections lead to improved customer satisfaction, as well as lower customer service costs, as the automated notices reduce the number of inbound calls from customers looking for sales order status.

## **Conclusion**

All food and beverage manufacturers have gone through the process of implementing an ERP system to handle their needs from sales order capture through cash payment processing. The basic warehouse management capabilities within their ERP system usually satisfy 75-80 percent of their distribution requirements. The gap is often filled through manual processes or, in some cases, through the implementation of a standalone WMS.

However, in a high-volume/low-margin industry such as food and beverage, satisfactory capability is no longer sufficient for firms looking to be market leaders. Standalone solutions are not the answer. What is needed is to fully integrate the ERP system to the WMS, thus providing an Advanced Warehouse Management System (AWMS).