



Science of Supply Chain. **DELIVERED**



INCREASING PRODUCTIVITY WITH USE OF ADVANCED TECHNOLOGY



The Context

An important benchmark of an efficient supply chain system is its ability to get goods delivered on time and with complete accuracy. Distribution Centres are the pivots around which a healthy supply chain revolves. Once goods are delivered by vendors to the Distribution Centres, having them delivered in full to consumption locations, i.e retail outlets, is the litmus test of any supply chain system. It also ensures optimum sales which drive a company's bottom line. The problem of difficult and inaccurate delivery occurs with disconcerting regularity, in particular, with supply chains which have to frequently replenish stocks while handling a large number of SKUs.

This problem is markedly noticeable in the garment and food industries where the supply chains handle a large number of SKUs, accompanied by frequent replenishments. These industries demand On-Time and In-Full (OTIF) delivery of stocks; failure to measure up to these exacting standards can result in a considerable loss of sales and obsolescence which can impact a company's profitability.

The Problem

One of our customers in Retail, faced the vexatious problem of OTIF and urgently needed a solution which would improve the picking productivity as well as the accuracy of dispatches from the Distribution Centres. This, in turn, would ensure time-bound and an efficient replenishment of stock at their retail outlets.

To understand the depth of our client's problem and to mitigate his distress, we spent several days in the food and garment Distribution Centres trying to locate the weaknesses in the system. We studied the entire order cycle in detail to understand the ordering mechanism, the SKU depth, movement of goods, picking methods, the quantity picked per day, etc.

The Solution

Our study indicated that a radical change was required in the picking methodology. A quick switch was needed from the conventional Order Pick and Cluster methods to the more sophisticated and efficient Batch Pick methodology. The Batch Picking method is usually employed when multiple orders are picked during each pass through the warehouse. This method is used when there are a high number of SKUs and long pick paths. The method works best when products and orders are small, permitting the pickers to carry several boxes on a cart at the same time.

Batch Picking needs to be supported by an efficient sorting mechanism which dovetails neatly with its own techniques. However, conventional sorting methods which use handhelds or the paper sort technique are neither efficient and nor do they lead to sorting accuracy.



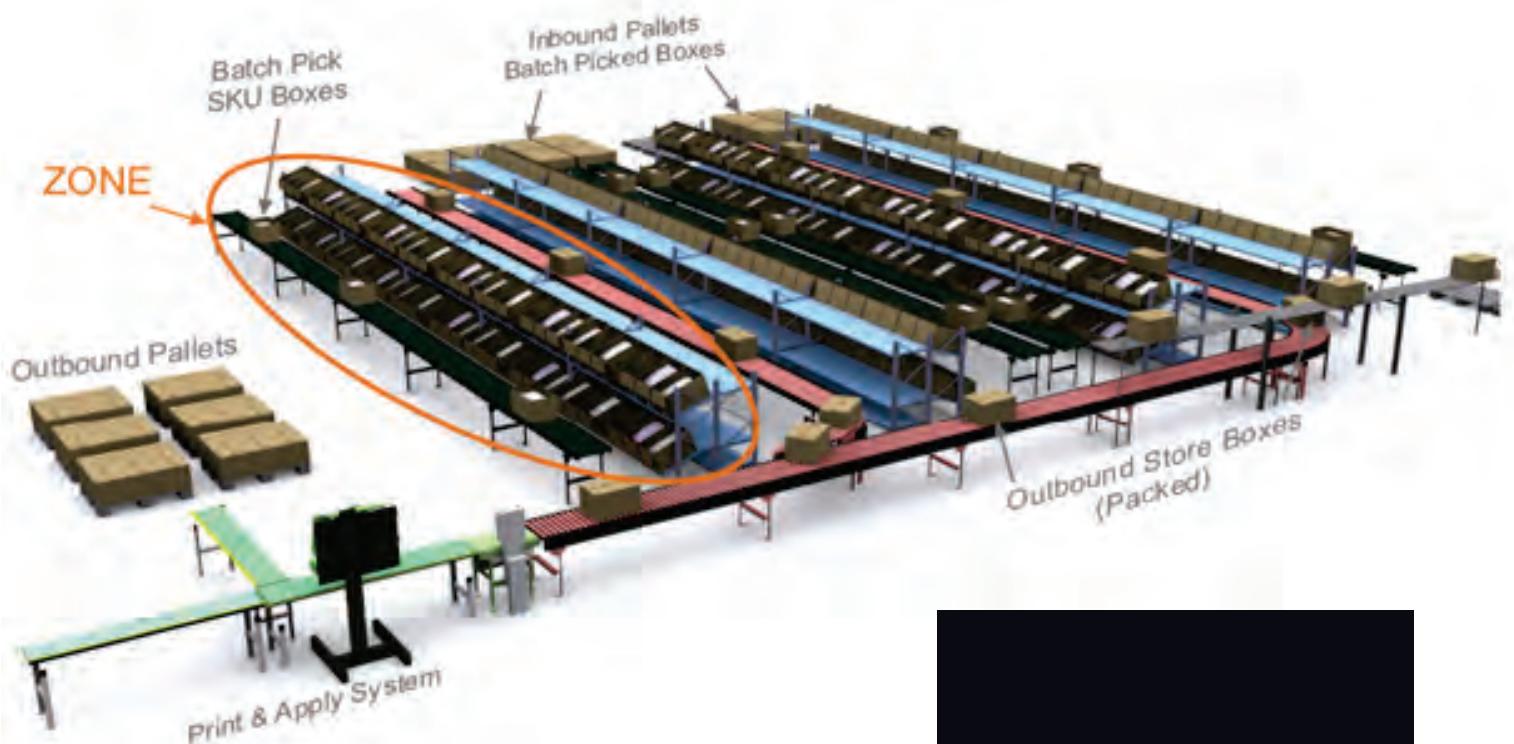
After studying various global practices like Ring Sorters etc., we chose the Put To Light system as we felt it would be compatible with the Batch Picking methodology, scalable and easy to implement and use. With this system, the operator just picks up an item and scans it with an RF unit. Lights flash at locations which require that item and the orders indicating the necessary quantities are then registered. This process is repeated until the orders are completed. The Put to light approach is uber fast and accurate and increases sort rates while reducing reading errors.

The Outcome & Impact



We were enthused by the results of the newly installed system. The picking efficiency increased by 300% while the line fill rate shot up to 98%. There was close to 100% accuracy in dispatches, with faster sortation rates which were, on an average, 40% superior to paper based or RF only methods. This method is also space efficient as well as cost effective for operations with a large number of SKUs as Put To Light does not require a light module at every product location like a Pick To Light system does.

It is only a correct choice in terms of innovation and accuracy that will ensure a healthy supply chain.



**Typical
Put to Light
System**