DEMAND PLANNING

True Demand Planning not only looks at what is selling, but also what could or should have sold if the appropriate stock was on hand.

4R's Demand Planning Solution

All demand planning solutions strive to get the right amount of inventory in proper retail locations. Not all are created equal, and not all can plan effectively to increase profit. Traditional forecasting systems only consider historical sales. 4R's Demand Planning solution is a flexible forecasting system that can integrate into other applications. The forecasts generated by 4R's algorithms are the foundational logic to support the execution of those other systems.

The algorithms that drive these forecasts and the results can be fed into any other merchandise or supply chain system. Virtually anywhere a retailer wants to understand consumer demand, 4R can provide the data points and other information needed. Retailers can choose our pure Demand Planning solution, or other solutions that incorporate demand planning, such as Assortment Optimization, Replenishment, or Seasonal Allocation.

There is very little disruption to current processes as this module can integrate into any external solution. In essence, there is no need to rip and replace current systems to get better results. Very little effort is required from the IT or Merchandising teams other than the setting up the initial integration. Additionally, 4R utilizes a forecast alert which notifies the user when and where outliers might exist. As with all other 4R solutions, the goal is always profit optimization by using machine learning and advanced analytics. These also result in reducing time consuming and manual tasks.

What is Demand Planning?

Perhaps one of the most crucial, yet difficult things for retailers to figure out is how to accurately forecast demand and make sure they carry the right amount of inventory. Too little inventory, and you will lose sales. Too much inventory leads to higher costs and unnecessary markdowns. Neither of these outcomes is optimal because it results in missed profit opportunities.

Various forecasting methods have existed for a very long time. Traditional methods only look at different types of historical data to make predictions on what demand will be for a given SKU. However, many traditional methods miss the mark because they aren't taking all the variables into account. This is where modern demand planning solutions come in to play.

Demand planning solutions include multi-level and directional forecasting techniques. In essence, depending on what information a retailer is looking for, demand planning helps find actual demand. Understanding actual demand can ensure retailers buy the right quantities to support the lifecycle of a given item before and during the season. It can also help retailers know:

- What inventory to carry
- What the optimal pricing should be for any given SKU
- How to manage store resources effectively

This planning encompasses all demand locations, whether in-store or online.

> Demand planning offers deeper insight into actual demand and if utilized properly, results in greater profitability for retailers.

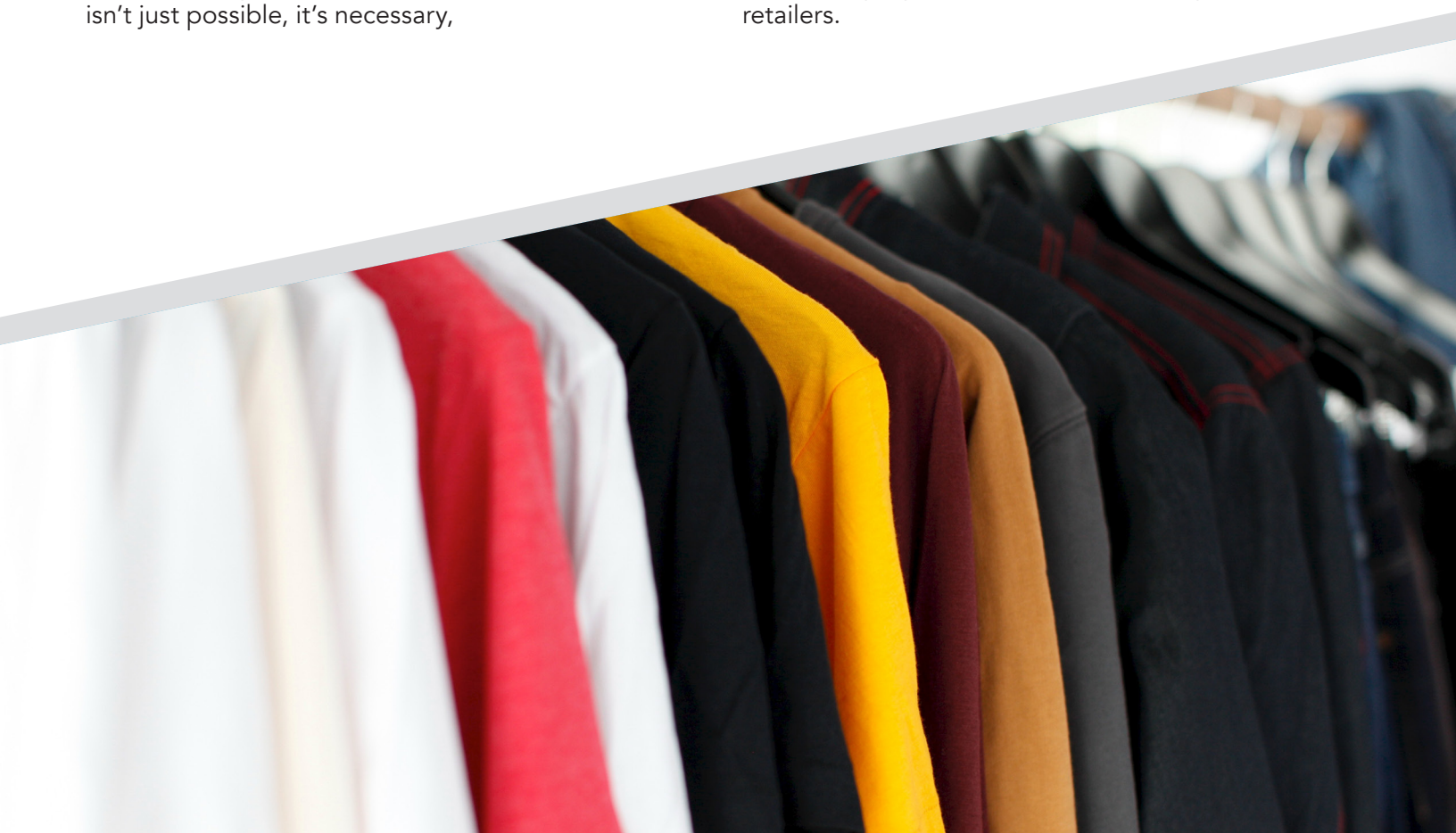
Why is Science-based Demand Planning Important for Retailers?

Omnichannel retailers have to worry about inventory being accessible in multiple channels. In terms of omnichannel supply chain, demand planning provides a forecast that is used to generate accurate order quantities. These quantities are based on actual customer demand, which ensures retailers have the right quantity on the shelf at any point in time to satisfy their customers. In the past, demand planning solutions were more primitive. They also relied on professional experts to use gut instinct to predict demand.

Today's retail environment demands more. A retailer cannot risk getting the inventory levels one SKU wrong. One high-ticket SKU, multiplied across the chain, can make or break the profit for a quarter. 4R's demand planning solution is based on science. Machine Learning algorithms improve daily, so having an accurate forecast isn't just possible, it's necessary,

Demand planning also helps improve overall customer experience. Accurate forecasts are vital to ensure the product is on the physical store shelf or available at a fulfillment center for web demand. This will ultimately lead to positive customer experiences. Conversely, having too much product on the shelf could provide an overstock situation for the store (lack of space), as well as an overinvestment in inventory.

Additionally, demand planning can help improve efficiency with product suppliers due to the fact that it offers more accurate forecasts. By leveraging these enhanced forecasting capabilities, suppliers can plan their raw material and production scheduling better by understanding consumer forecasts. Ultimately, demand planning offers deeper insight into actual demand and if utilized properly, results in greater profitability for retailers.



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What's New about Demand Planning?

While it is extremely crucial to retailers, demand planning isn't new. It is actually a forecasting term derived from Material Requirements Planning (MRP) software. Retailers and wholesalers adopted the term because it was more inclusive to supply chain and post finished goods.

Today's demand planning solutions are much more dynamic in that they include more variables as they generate forecasts for multiple streams of demand. They also can support multiple frequencies or periodicity, meaning they can show hourly, daily, weekly, monthly, quarterly, and yearly results at any given point in time.

Thanks to increased computing power and storage, advances in artificial intelligence and machine learning have really helped improve the effectiveness of demand planning. As data sets grow, demand planning solutions can continue to improve their algorithms automatically. This will provide an even more accurate forecast that aligns with real time customer demand.

The best solutions also include potential lost sales, whereas many traditional forecasting systems only consider historical sales. As a result, retailers can know what true demand is because they don't just look at what is selling, but rather they examine what could or should have sold if the appropriate stock was on hand. Further, top demand planning solutions work equally well for slow or fast moving items, where standard systems typically only target fast movers.

Benefit of Demand Planning as a Standalone Service

In general, retailers need a flexible forecasting system that can integrate into other applications. The forecasts generated by 4R's algorithms are the foundational logic to support the execution of those other systems.

Demand planning encompasses the whole supply chain. By using a standalone solution that integrates with existing technologies, retailers can see results very quickly across their entire supply chain. Very early results typically occur upstream in the supply chain (i.e. the DC or supplier) as the demand is aggregated or normalized at a higher level.

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