



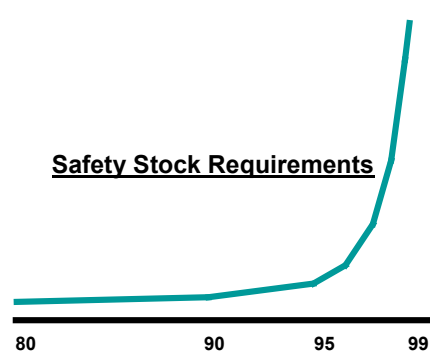
Service Level Goal Strategy: Path to Profit

“Just carry enough inventory so we never walk a customer.” “Add a couple weeks of supply to the inventory at each store to make sure we don’t run out of stock and lose sales.” Are these statements familiar to you? They tend to be standard rhetoric for most retailers. However, carrying the same amount of safety stock for all items is an extremely costly and inefficient approach to inventory management. Establishing a service level goal strategy can prove to be one of the most profitable decisions successful retailers make.

Safety stock is used as a hedge against uncertainty. Many factors combine to create this uncertainty, but the most common factors include demand forecast error and lead time variance. While lead time variance can be minimized through a strong vendor compliance program, customer purchase forecasts will always be an inexact science. Retailers need some way to intelligently compensate for the inevitable variance from forecasts. Service level goals dictate how replenishment solutions compensate for this uncertainty with safety stock.

Not all items need the same amount of safety stock. Some items have more consistent demand patterns and need less safety stock while other items have less reliable vendors whose lead time variance causes delayed shipments and lost sales. Some items have larger demand forecasts that require additional pieces of hedge stock while other items receive larger receipts less frequently and have fewer chances to run out of stock. With all of these attributes varying across each item location, how much safety stock is enough? How should service levels be set to achieve the desired safety stock levels?

When determining a service level strategy, adding inventory to cover all potential sales is normally the first strategy chosen. After all, more sales mean more profit – right? Unfortunately, purchasing and carrying the additional inventory required to support every potential sale is very expensive. In fact, as service level goals increase, the inventory required to support those goals increases exponentially. Do retailers really want to carry the inventory required to support all possible sales? For example, if a busload of tourists stops at a store and purchases a three month supply of an item, should safety stocks be increased just in case another busload of customers with the same shopping habits comes along?



The graphic shows how safety stock requirements increase as service level goals increase. Example: An item sells between three and five pieces each week throughout the year. One week in April saw increased sales of 17 pieces because of a single customer purchase. A 99.9% service level goal for the item would dictate keeping at least 17 pieces of inventory available throughout the year.



Service Level and In Stock

It is important to discuss two terms related to safety stock that are often used interchangeably: service level and instock. A service level goal represents the percent of forecasted sales a retailer desires to capture. An instock goal represents the percent of locations with one piece on hand when measured at a point in time. Here is an example that illustrates the difference between the two measures. OH represents the inventory on hand, DF represents the demand forecast for the item and Lost refers to sales lost because of out of stocks.

Example A: 80% Instock, 20% Service Level



OH 10
DF 5
Lost 0



OH 10
DF 5
Lost 0



OH 0
DF 80
Lost 80



OH 10
DF 5
Lost 0



OH 10
DF 5
Lost 0



Total DF 100
Total Lost 80
4/5 Stores Instock

Example B: 20% Instock, 80% Service Level



OH 0
DF 5
Lost 5



OH 0
DF 5
Lost 5



OH 90
DF 80
Lost 0



OH 0
DF 5
Lost 5



OH 0
DF 5
Lost 5



Total DF 100
Total Lost 20
1/5 Stores Instock

While instock reporting can provide valuable historic insights, many retailers believe service levels have a greater impact on future retailer profitability and therefore justify increased focus and attention.

Strategies for Setting Service Level Goals

Service level goals drive inventory levels and sales – two critical components of retail profitability. Service levels set too high cause companies to carry more inventory than needed to maximize profits. Service levels set too low cause lost sales, lower gross margins and reduce overall customer satisfaction. Establishing a clear strategy by item, location and time period for setting service level goals removes unnecessary inventory from the demand chain while increasing sales, margins and profits.

Accurately setting service level goals can result in a 10-15% inventory reduction along with a 2-10% service level improvement. How can setting service level goals have such dramatic impacts on the bottom line? The graphic indicates how a poor service level strategy impacts profits.



6. Vary service level goals by location based on location attributes. Certain stores such as new stores or stores in highly competitive markets may justify higher service level goals. Other stores such as those without large back rooms or those preparing to close or remodel may justify lower service level goals to drive lower inventory levels.

7. Vary service level goals to make a competitive statement. There are certain items that are so important to a retailer's identity that customers will not accept out of stocks. Corporate strategy may indicate that some items are more valuable to the consumer than the profit margins alone would indicate. High traffic items such as baby diapers or formula often have larger safety stocks and more inventory than profit margins (often these items are loss leaders) would justify alone.

Those familiar with the assortment management process will note that these types of service level goal decisions go hand in hand with assortment decisions and criteria. For example, items are classified as high traffic, promotional, high margin, seasonal or destination items in the assortment management process. These monikers give good indications of how service level goals should be set for the item or category.

End Results

The best retailers are able to present an image of 100% instock while minimizing inventory levels for low visibility items that carry a high risk of obsolescence. Selectively choosing times, products or locations with high service levels enables retailers to minimize inventory invested while maximizing perceived instock levels. Retailers must take the opportunity to fully utilize their investment in a replenishment solution by establishing a service level goal strategy and find the path to profit.

About RPE

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