

Top 6 Tips on calculating safety stock and reorder point and reorder quantity



Top 6 Tips for calculate Safety Stock, Re-Order Point and Re-Order Quantity

It is essential for any procurement manager to understand how to calculate safety stock, reorder point and reorder quantity. These three factors play a crucial role in ensuring that an organization has the necessary inventory levels to meet customer demand.

What is Safety Stock

Safety stock is the additional inventory that is maintained to protect against stock-outs. It is calculated by taking the maximum expected demand during the lead time and adding a safety factor. The safety factor can be based on historical data or estimated using a statistical method such as the standard deviation.

What is the re-order point (ROP)

The re-order point is the point at which an organization should place an order for more inventory. It is calculated by taking the average daily demand during the lead time and adding the safety stock.

What is the re-order quantity (ROQ)

The re-order quantity is the amount of inventory that should be ordered when the re-order point is reached. It is usually calculated by taking the maximum expected demand during the lead time and adding the safety stock.

Here are some tips on how to successfully calculate the ROP and ROQ:

1. Know your product demand

In order to calculate the ROP and ROQ, you need to have a good understanding of your product demand. This includes understanding the demand pattern (e.g. monthly, seasonal, etc.), as well as the expected demand variability (e.g. standard deviation).

2. Determine your company's average daily sales.

This is the average number of units that your company sells each day.

3. Use historical data

When calculating the ROP and ROQ, it is helpful to use historical data to estimate future demand. This data can be from your own company's sales records, or from industry data.

4. Use safety stock

Safety stock is inventory that is maintained to hedge against stock-outs. When calculating the ROP and ROQ, it is important to include a safety stock buffer to account for unexpected demand variability.

5. Consider lead time.

Lead time is the time it takes to receive an order from the supplier. When calculating the ROP and ROQ, it is important to consider the lead time in order to avoid stock-outs. Check the supplier stated lead time versus the actual lead time it takes for the goods to arrive (door-to-door) to ensure they are the same.

6. Use statistical methods.

There are various statistical methods that can be used to calculate the ROP and ROQ. These methods include the use of statistical forecasting, as well as optimization techniques.

By understanding how to calculate safety stock, re-order point and re-order quantity, procurement managers can ensure that their organization has the necessary inventory levels to meet customer demand.