# Supply-Chain Key Performance Indicators

The following key performance indicators (KPIs) can be useful in monitoring the performance of a supply-chain process. Many of the KPIs can be tracked for an end-to-end supply chain as well as for a segment or facility of a supply chain (e.g., health facility, warehouse/store).

**Cost of Goods Sold/Distributed:** The cost for selling or distributing all goods or commodities for a given period.

*Cost of goods or commodities in inventory at start of period + Cost of goods or commodities purchased during the period
– Cost of goods or commodities in inventory at end of period = Cost of goods sold or distributed during the period*

**Expired Goods Percentage:** The percentage of goods or commodities that expired during given period while in inventory.

*(Volume of goods or commodities expired during the period / Total volume of goods or commodities in stock during the period) X 100 = Expired goods percentage %*

**Inventory Accuracy Percentage:** The percentage of inventory, physically counted, vs. recorded inventory (e.g., inventory database).

*(Inventory count by SKU consistent with records / Total SKUs recorded) X 100
= Inventory accuracy percentage*

OR

*(Total inventory count consistent with records / Total inventory recorded) X 100
= Inventory accuracy percentage*

**Inventory Days of Supply (DoS):** The amount of inventory (stock), expressed in days of usage, which measures the number of days of funding tied up in inventory.

*Gross value of inventory at standard cost / Cost of one day’s usage of inventory at standard cost = DoS days*

**Inventory Turnover Rate:** The number of times a supply-chain/facility/warehouse/store turns over its inventory annually.

*Annual value of inventory held / Average value of inventory on hand = Inventory turnover rate*

**On-Time Delivery Percentage:** The percentage of orders that arrive on or before the requested date.

*(Total on-time orders / Total orders) X 100 = On-time delivery %*

**Orders Delivered in Full Percentage:** The percentage of orders in which all items received are the correct quantity.

*(Total orders delivered in full / Total orders) X 100 = Orders delivered in full %*

**Perfect Order Fulfilment Percentage:** The percentage of orders meeting delivery performance with complete and accurate documentation and no quality problems; all individual components of the orders are perfect. Also called complete-and-on-time delivery rate.

*(Total perfect orders / Total orders) X 100 = Perfect order fulfillment %*

**Procurement Cycle Time:** The average time to procure goods or commodities, which should include time to identify supplier sources, select supplier, place orders, transport orders, and receive goods or commodities.

*Time to procure for all orders / Total orders = Average cycle time days*

**Returned Goods Percentage:** The percentage of goods/commodities that are returned to suppliers for a given period.

*(Volume of goods or commodities returned for the period / Total volume of goods or commodities for the period) X 100 = Returned goods percentage %*

**Stockout Percentage:** The percentage of goods or commodities that could not be provided for a given period.

*(Volume of goods or commodities that could not be provided upon request during the period / Total volume of requested goods or commodities during the period) X 100 = Stockout percentage %*

OR

*(Number of requests for goods or commodities that could not be provided during the period / Total number of requests for goods or commodities during the period) X 100 = Stockout percentage %*

**Storage Capacity Utilization Percentage** The percentage of space used for the storage of goods or commodities.

*(Occupied storage capacity / Total storage capacity) X 100 = Storage capacity utilization %*

**Supplier Leadtime:** The time it takes from the order of a good or commodity to its receipt. Supplier lead time can be calculated for a specific good or commodity, specific supplier, all goods or commodities, or all suppliers.

*Total of lead times to receive goods or commodities / Number of orders for the goods or commodities
= Supplier leadtime days*

**Total Supply-Chain Management Cost:** The sum of costs to plan, source, deliver, and return all goods/commodities. (The cost of inventory is usually accounted for by the cost of goods sold (COGS) metric.)

*Cost to plan + Cost to source + Cost to deliver +
Cost to return + Mitigation costs = Total supply chain costs*