



CQO:
The Health Care
Supply Chain

Perfect Order



Purpose:

Perfect order is a composite metric that serves to measure the process by which a purchase order (PO) electronically - from order to payment – occurs without human intervention to ensure it is delivered to the correct location, on time, undamaged, at the correct price with the desired quantity, all on the first attempt.

Value:

Perfect order enables performance measurement to cut across functional silos, while also allowing a multi-level view of results; facilitates analysis of performance failures to provide insight into failure patterns and trends, which can then be targeted as part of continuous improvement efforts; and helps galvanize collaboration across the internal/external organizations collectively responsible for supply chain performance.

Equation:

To calculate the percentage of perfect orders, multiply the following four sub-metrics:

Percentage of Purchase Orders delivered on time:

Number of Purchase Orders delivered on time / Total number of Purchase Orders sent out to all distributors and suppliers

Percentage of Purchase Orders shipped complete

Number of Purchase Orders shipped complete / Total number of Purchase Orders sent out to all distributors and suppliers

Percentage of Purchase Orders shipped damage free

Number of Purchase Orders shipped damage free / Total number of Purchase Orders sent out to all distributors and suppliers

Percentage of Purchase Orders successfully Three-Way Matched against the Receiver and Invoice

Number of Purchase Orders successfully Three-Way Matched against the Receiver and Invoice / Total number of Purchase Orders sent out to all distributors and suppliers

$$\begin{aligned} & \text{Percentage of Purchase Orders delivered on time} \times \text{Percentage of Purchase Orders shipped complete} \times \\ & \text{Percentage of Purchase Orders shipped damage free} \times \text{Percentage of Purchase Orders successfully Three-} \\ & \text{Way Matched against the Receiver and Invoice} \\ & = \text{Perfect Order Percentage} \end{aligned}$$

Note: it is favorable to have a higher value for this Key. The higher the value the better.



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Example:

It is difficult to achieve a very high perfect order value because the final formula is based on multiplying the sub-metrics together. So if the orders delivered in a time period averaged 95 percent on time, 95 percent complete, 95 percent damage free, and had 95 percent documentation ($0.95 \times 0.95 \times 0.95 \times 0.95$), the final perfect order number for that period would be only 81 percent.

And the lower the initial percentages in the formula, the lower the resulting perfect order percentage. So if only 80 percent of shipments were on time and 80 percent were shipped complete, even if the health care organization was perfect in the other areas, the total perfect order value would only be 64 percent!

Input Descriptions and Sources:

Input Name	Includes	Excludes
Total number of Purchase Orders sent out to all distributors and suppliers	The total number of Purchase Orders sent via EDI, Fax, phone or other method that were sent out by your organization this month to the various distributors and suppliers.	See points of clarification below.
Number of Purchase Orders delivered on time	Out of the total number of Purchase Orders sent out during the month, how many were delivered on time (arrive at their final destination at the agreed upon time between the customer and the shipper)?	
Number of Purchase Orders shipped complete	Out of the total number of Purchase Orders sent out during the month, how many were shipped complete (arrive with all lines and units)?	
Number of Purchase Orders shipped damage free	Out of the total number of Purchase Orders sent out during the month, how many were shipped damage free (arrive in good and usable condition)?	
Number of Purchase Orders successfully Three-Way Matched against the Receiver and Invoice.	Out of the total number of Purchase Orders sent out during the month, how many were successfully Three-Way Matched against the Receiver and Invoice (for which the customer received an accurate invoice and other required documents)?	



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Points of Clarification:

- Organizations that measure perfect order typically include additional metrics to build up a comprehensive picture of cross-functional performance.
- In some cases these extra metrics are added to the above formula, but in others they may make up a further level of detail, below the on-time, in-full, and correct invoice metrics.
- In making the decision to include additional metrics, it is important to remember that the more metrics used to make up the perfect order result, the harder it will be to achieve a high perfect order percentage.
- Taking a simple yet consistent approach is recommended.