

Module 9 – Supply Chain KPIs & Data Awareness

Logistics & Supply Chain Management | Industry Readiness & Interview Skills (2 Hours)



- **Master Core KPIs**

Understand critical metrics including OTD, Order Accuracy, Inventory Turnover, Fill Rate, Cycle Time, Lead Time, Utilization, Freight Cost, Stockout Rate, and Return Rate.

- **Develop Data Literacy**

Learn to accurately calculate essential KPIs and interpret complex logistics dashboards to drive operational efficiency.

- **Strategic Communication**

Gain the ability to translate technical data findings into clear, actionable business insights for key stakeholders.

Understanding Supply Chain Key Performance Indicators

Measuring performance against operational goals



- **Delivery and Service**
Tracking service levels, customer satisfaction, and fulfillment quality.
- **Inventory Management**
Optimizing stock levels and managing working capital effectively.
- **Warehouse and Transportation**
Monitoring the efficiency of movement, storage, and network throughput.
- **Cost and Returns**
Evaluating financial impact and managing reverse logistics processes.

A KPI is useful only when it triggers informed action.

Measuring Delivery and Customer Service Performance

Key Performance Indicators for Operational Excellence

KPI	Definition	Why It Matters
On-Time Delivery	$(\text{On-Time} / \text{Total Deliveries}) \times 100$	Ensures reliability and maintains customer expectations.
Order Accuracy	$(\text{Accurate Orders} / \text{Total Orders}) \times 100$	Reduces returns, labor costs, and customer frustration.
Fill Rate	$(\text{Units Fulfilled} / \text{Units Requested}) \times 100$	Reflects inventory health and ability to meet demand.
Order Cycle Time	Time from order receipt to delivery	Identifies bottlenecks and operational efficiency.

Measuring Inventory Performance

Key Metrics for Effective Inventory Management



Inventory Turnover

Formula: $\text{COGS} / \text{Average Inventory}$.
Measures sales efficiency (e.g., ₹12L / ₹3L
= 4 turns/year).



Stockout Rate

Formula: $(\text{Affected Order Lines} / \text{Total Order Lines}) \times 100$. Tracks item availability relative to demand.

High turnover does not equate to success if stockouts are frequent. Always evaluate inventory KPIs alongside service levels to ensure operational health.

Measuring Operational Utilisation

Key Metrics and Strategic Interpretation

- **Warehouse Utilization**

$(\text{Occupied Storage Space} / \text{Usable Storage Space}) \times 100$

- **Vehicle Utilization**

$(\text{Actual Payload} / \text{Rated Payload Capacity}) \times 100$

- **Low Utilization**

Potential indicator of operational inefficiency or excess capacity.

- **High Utilization**

Risk of compromising safety, accessibility, and operational agility.

Best Practice: Always clearly define the measurement basis to ensure consistency in reporting and performance analysis.

Cost, Speed, and Returns Performance

Key logistics metrics for evaluating operational efficiency



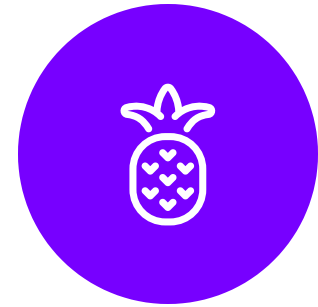
Freight Cost

Calculated as Total Freight Cost / Number of Shipments to identify cost-per-unit or cost-per-km efficiency.



Delivery Lead Time

Tracks elapsed time between key stages, from order confirmation to final customer delivery.



Return Rate

Calculated as (Orders Returned / Orders Delivered) x 100 to measure the percentage of deliveries resulting in returns.

These metrics identify performance trends but require deeper root cause analysis to understand the 'why' behind the numbers.

Calculating On-Time Delivery

Measuring operational efficiency and identifying improvement areas



The Formula

$(\text{Orders Delivered On Time} / \text{Total Orders Received}) \times 100$. For example, $920/1,000 = 92\%$.



Performance Insight

Current status is 92% on-time delivery with 8% delayed.



Investigation Areas

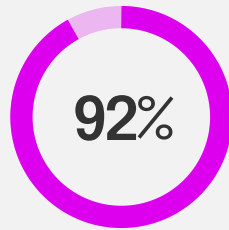
Examine supplier lead-times, logistics bottlenecks, and internal warehouse processing delays.

Calculating the metric is only the first step; the professional requirement is to analyze the 'why' behind the delays to implement meaningful operational changes.

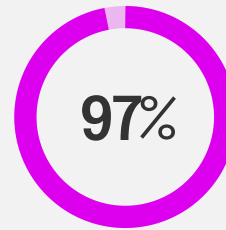
Logistics Performance Dashboard

Key Operational Metrics and Trends

OTD



Order Accuracy

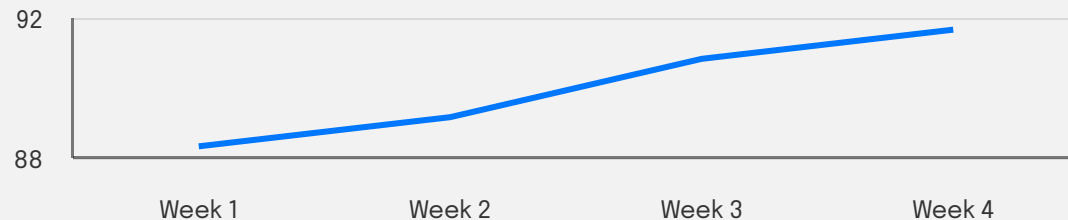


Inventory Turnover

4x

Target: 3.5x

OTD Weekly Progression



Best Practice

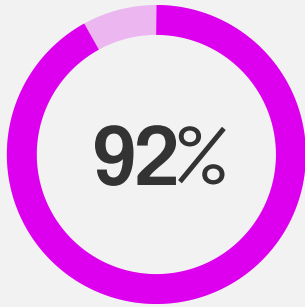
Context is Essential: Avoid labeling metrics as 'good' or 'bad' without comparing them against defined targets or historical trends.

Always evaluate metrics against defined targets or historical trends to ensure accurate performance assessment.

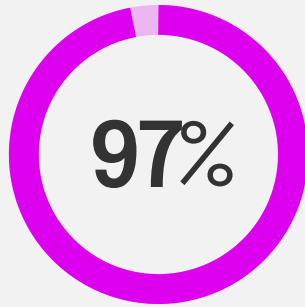
Practical KPI Dashboard Interpretation

Troubleshooting & Root Cause Analysis

Late Deliveries



Inaccurate Orders

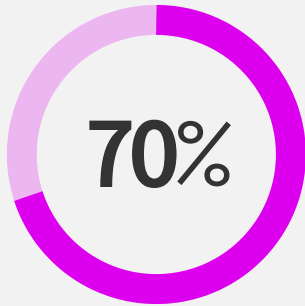


Inventory Turnover

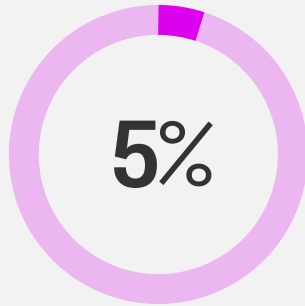
4.0

Turnover Rate

Warehouse Utilization



Return Rate



Key Investigation Areas

Focus on carrier transit logs for delivery delays, SKU labeling accuracy, slow-moving SKU velocity, slotting efficiency, and CRM return reason codes.

Supply Chain KPIs & Data Awareness: Recap

Key insights and takeaways from our performance analysis



Core KPI Review

Comprehensive analysis of the 11 essential metrics driving supply chain performance.



Scenario Analysis

Evaluating the impact of OTD fluctuations (96% to 90%) alongside rising operational costs.



Interview Preparation

10 essential questions covering definitions, calculation methodologies, and real-world application.

KPIs act as the bridge between raw data and actionable business insights, enabling smarter, data-driven decision-making.