

IDENTIFYING KEY PERFORMANCE MEASURES

This step focuses on defining key metrics that will measure the effectiveness and efficiency of the supply chain processes at AtliQ Mart, ensuring alignment with broader company objectives.

1. Key Performance Indicators (KPIs)

A. Orders and Lines

- **Definition:**
 - An order is a unique request from a customer on a specific date.
 - Each order can consist of multiple items, referred to as order lines (e.g., an order for 4 notebooks and 2 pens results in one order with two order lines).

B. Metrics to Track

1. Line Fill Rate (LIFR):

- **Definition:** The ratio of line items shipped compared to the total line items ordered.
- **Importance:** This metric helps assess the fulfillment efficiency for order lines.
- **Calculation:**

$$\text{Formula for calculating LIFR: } \text{LIFR} = \frac{\text{Number of line items fulfilled}}{\text{Total number of line items ordered}}$$

- **Example:** If 2 line items (4 notebooks and 2 pens) are ordered, but only 1 pen is received, $\text{LIFR} = 1/2 = 50\%$.

2. Volume Fill Rate (VOFR):

- **Definition:** Measures the total quantity of products shipped to a customer relative to the quantity ordered.
- **Importance:** Useful for understanding overall shipment effectiveness.
- **Calculation:**

$$\text{Formula for calculating VOFR: } \text{VOFR} = \frac{\text{Total quantity shipped}}{\text{Total quantity ordered}}$$

- **Example:** For an order of 6 items, if 5 are shipped, $\text{VOFR} = 5/6 = 83\%$.

3. On-Time Delivery Percentage (OT%):

- **Definition:** Measures the percentage of orders delivered on time.
- **Importance:** Key to assessing customer satisfaction and service reliability.
- **Calculation:**

$$\text{Formula for calculating On-Time Delivery: } \text{On-Time Delivery \%} = \frac{\text{Number of orders delivered on time}}{\text{Total number of orders}}$$

- **Criteria:** An order is "On Time" only if all line items are delivered as scheduled.

4. In-Full Delivery Percentage (IF%):

- **Definition:** Measures the percentage of orders delivered in full.
- **Importance:** Indicates the completeness of the order fulfillment process.
- **Calculation:**

Formula for calculating In-Full Delivery: $\text{In-Full Delivery \%} = \frac{\text{Number of orders delivered in full}}{\text{Total number of orders}}$

- **Criteria:** An order is "In Full" only if all line items are delivered in the requested quantity.

5. On-Time In-Full (OTIF) Percentage:

- **Definition:** Measures whether orders are delivered both on time and in full.
- **Importance:** A critical metric for assessing overall order fulfillment performance from the customer's perspective.
- **Calculation:**

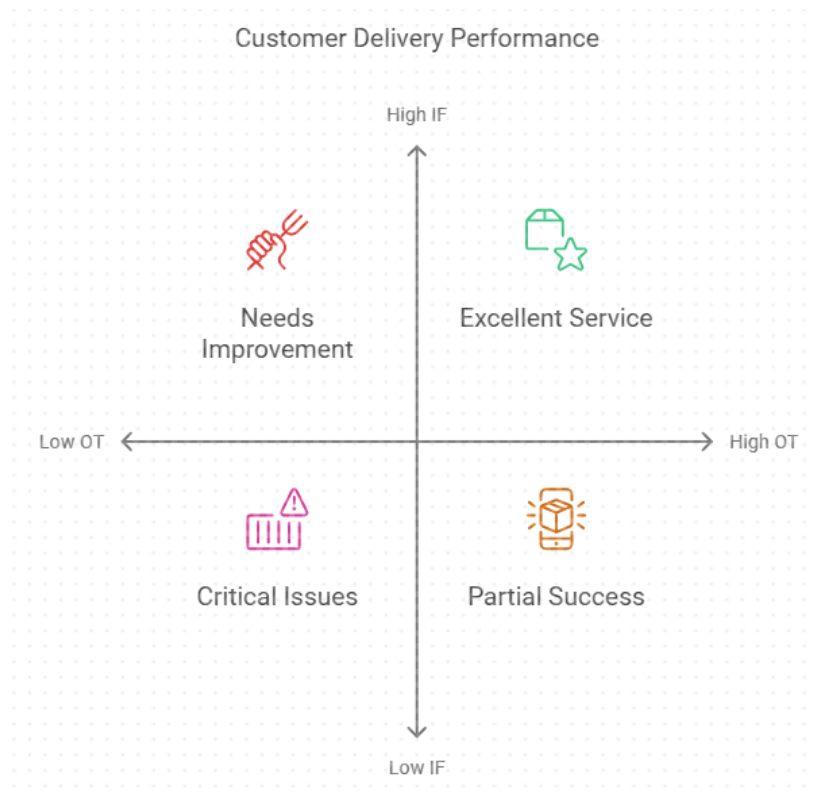
Formula for calculating OTIF: $\text{OTIF \%} = \frac{\text{Number of orders delivered on time and in full}}{\text{Total number of orders}}$

- **Criteria:** An order is considered "OTIF" only when all line items are delivered both on time and in full.

2. Customer Delivery Performance Matrix

Matrix Structure:

- **Horizontal Axis:** On-Time delivery rate (OT) - from low (Low OT) to high (High OT).
- **Vertical Axis:** In-Full delivery rate (IF) - from low (Low IF) to high (High IF).



Quadrant Classification:

1. **Critical Issues (Low OT, Low IF):**
 - **Action:** Immediate prioritization of issues for resolution.
2. **Needs Improvement (Low OT, High IF):**
 - **Action:** Focus on enhancing delivery timeliness.
3. **Partial Success (High OT, Low IF):**
 - **Action:** Improve fulfillment rates to ensure completeness.
4. **Excellent Service (High OT, High IF):**
 - **Action:** Maintain and build upon current standards of excellence.

Usage:

- This matrix serves as a visual tool for evaluating delivery service levels and guiding improvement strategies, facilitating discussions with stakeholders on performance and action plans.
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3. Setting Benchmarks and Aligning with Company Goals

Establish Benchmarks:

- Benchmarks can be based on historical data, industry standards, or competitive analysis.
- For example, set LIFR and VOFR targets based on best-in-class performers, aiming for:
 - **LIFR Target:** 95%
 - **VOFR Target:** 90%
 - **OT Target:** 98%
 - **IF Target:** 95%
 - **OTIF Target:** 95%

Aligning with Company Goals:

- Ensure that the established KPIs directly support the overarching objectives of AtliQ Mart, such as enhancing customer satisfaction, improving operational efficiency, and increasing market competitiveness.
- Regularly review these metrics in the context of strategic goals during team meetings to ensure continued alignment and adapt to changing business needs.