# Technical Documentation: Top Management Reporting & Dashboard KPIs

This document outlines the key performance indicators (KPIs) and strategic reports essential for top management in a make-to-order manufacturing ERP system. Each metric includes its definition, visual representation method, calculation logic, and where applicable, sample data. This helps the product and engineering teams implement accurate, role-specific dashboards and reporting tools.

## WO Delay Rate

Definition: Percentage of work orders completed after their committed delivery date.

Visual Representation: Donut chart (on-time vs delayed), Line chart (delay trend).

Calculation Logic / Example:

WO Delay Rate (%) = (No. of delayed WOs / Total WOs closed in period) × 100

## Production Cost per Job

Definition: Total cost incurred to complete a work order, including machine time, material, labor, and rework.

Visual Representation: Bar chart (WO vs Cost), Tabular with breakdown.

Calculation Logic / Example:

Cost = Σ (Machine Time × Rate) + Σ (Material Qty × Rate) + Optional Labor + Rework

## FG vs Dispatch Gap

Definition: Difference between finished goods produced and goods dispatched.

Visual Representation: Line/Bar chart showing month-wise FG vs Dispatch.

Calculation Logic / Example:

Gap = FG produced – Dispatched Qty (Can also convert to ₹ using item selling price)

## Monthly Sales

Definition: Total invoiced sales value during the current month.

Visual Representation: Card with total value; line chart for trend.

Calculation Logic / Example:

Sum(invoice amount) where invoice\_date ∈ current month

## Total Revenue

Definition: Cumulative revenue generated over a defined period (e.g. year-to-date).

Visual Representation: KPI card, Line chart.

Calculation Logic / Example:

Sum(invoice amount) over selected period

## Total Orders Received

Definition: Number of sales orders confirmed in a given timeframe.

Visual Representation: KPI card, Bar chart by month.

Calculation Logic / Example:

Count(sales\_order\_id) within selected period

## Revenue This Year

Definition: Total revenue generated during the current fiscal/calendar year.

Visual Representation: Line chart (monthly trend), KPI card.

Calculation Logic / Example:

Sum(invoice amount) where invoice\_date within current year

## Sales by Region

Definition: Distribution of sales across regions or zones.

Visual Representation: Pie chart or stacked bar by region.

Calculation Logic / Example:

Group by customer.region → Sum(invoice amount)

## Top Customers

Definition: Customers ranked by total sales value.

Visual Representation: Horizontal bar chart, Top-5 table.

Calculation Logic / Example:

Group by customer → Sum(invoice amount) → sort descending

## Machine Performance Report (OEE)

Definition: Efficiency of machines using Overall Equipment Effectiveness.

Visual Representation: Bar chart per machine; OEE matrix; heatmaps.

Calculation Logic / Example:

OEE = Availability × Performance × Quality  
  
Availability = (Planned Runtime – Downtime) / Planned Runtime  
Performance = Actual Output / Ideal Output  
Quality = Good Output / Total Output  
Example: Machine A – OEE = 0.875 × 0.95 × 0.98 = 81.6%

## Receivables Aging Report

Definition: Outstanding payments categorized into overdue time buckets.

Visual Representation: Table (invoice-wise), Pie chart by bucket.

Calculation Logic / Example:

Age = Current Date – Invoice Due Date  
Buckets: 0–30, 31–60, 61–90, 90+ days  
Example: Customer A – ₹50K (0–30), ₹75K (31–60), ₹25K (90+)

## Rework & Rejection Analysis

Definition: Tracks quality issues via rework and rejection trends.

Visual Representation: Pareto chart (rejection reasons), Table by WO/item/operator.

Calculation Logic / Example:

Rework Rate = (Reworked Qty / Total Qty) × 100  
Rejection Rate = (Rejected Qty / Total Qty) × 100  
Example: WO#1001 – Rework: 8%, Rejection: 5%

## Payables Aging Report

Definition: Shows unpaid vendor invoices grouped by overdue buckets.

Visual Representation: Table with vendor & bucket, Pie/Bar chart.

Calculation Logic / Example:

Age = Current Date – Due Date  
Buckets: 0–30, 31–60, 61–90, 90+  
Example: Supplier A – ₹45K (0–30), Supplier B – ₹85K (61–90), Supplier C – ₹28K (90+)