

Supply Chain Management Dashboard

The Supply Chain Management metrics, focusing on revenue, manufacturing, production, and logistics. Here's a detailed explanation:

Overall Summary Metrics (Top Row)

- Revenue Generated: \$577,605 — Total income generated from all product sales.
- Total Order Quantities: 4,922 — Represents the total units ordered.
- Total Availability: 4,840 — Indicates available stock levels, showing that stock is nearly meeting demand.

Revenue Insights

- **Revenue by Product Type:**
 - Skincare is the top contributor (\$241,628).
 - Followed by Haircare and Cosmetics.
- **Revenue by Price Range:**
 - A bar chart shows that most of the revenue falls in the middle or higher price range, suggesting premium pricing drives more revenue.
- **Revenue Distribution by Location:**
 - Mumbai (23.85%) and Kolkata (23.73%) lead in revenue contribution.
 - Delhi is the lowest (14.03%).

Manufacturing and Cost Efficiency

- **Revenue vs. Manufacturing Cost (by Product):**
 - Shows Skincare has the highest revenue and cost, but also strong profit margins.
 - Cosmetics has the lowest manufacturing cost but also lower revenue.
- **Profit Margins:**
 - Haircare has the highest margin (\$372).
 - Cosmetics: \$83.1.
 - Skincare: \$69.3.
 - Haircare is the most profitable per unit.
- **Manufacturing Costs by Product Type:**
 - Consistent with profit margin insights: Skincare > Haircare > Cosmetics.
- **Manufacturing Costs vs Production Volumes:**
 - Production volume is very high (56,784), but manufacturing cost is low (4,727), suggesting cost efficiency in bulk.
- **Cost by Inspection Results:**
 - Costs are fairly distributed across different inspection categories, with ~40% falling in a category costing 1,880.3.
- **Cost by Supplier:**
 - Variation in cost shows dependency on suppliers, with the highest supplier cost slightly above 1,200.

Order and Stock Management

- **Order Quantities by Location:**
 - Kolkata, Chennai, and Mumbai are high in order quantities.
 - Delhi and Bangalore are lower, indicating weaker demand.
- **Stock and Lead Times:**
 - Stock Level is high (4,777), while Lead Time is lower (1,596), indicating efficient replenishment cycles.
- **Production Volume vs Orders and Stock:**
 - Shows strong positive correlation — as production volume increases, stock and order quantities also rise.
- **Average Order Quantity vs Shipping Cost:**
 - Most orders occur in the lower shipping cost bracket, indicating cost-sensitive purchasing behavior.

Logistics and Transportation

- **Transportation Modes Used:**
 - Road (1,386) and Air (1,341) are the most used.
 - Rail (1,342) and Sea (853) follow.
 - This diversity indicates a balanced logistics strategy with a slight preference for road and air for speed.

