

Business Request from Stakeholders

Subject: Comprehensive Sales and Customer Performance Analysis for Strategic Decision-Making

Overview:

We need a detailed, multi-dimensional analysis of our sales performance and customer behavior to drive informed decisions around marketing, product strategy, and operational improvements. This analysis should leverage our transactional data ([sale_transaction-data]) to provide insights at various levels – overall revenue, country performance, customer segmentation, and product sales dynamics.

Key Objectives:

1. Overall Sales Performance:

- **Total Revenue Analysis:** Identify the total revenue generated across all transactions.
- **Yearly Revenue Trend:** Track yearly revenue trends including total transactions, revenue, average transaction value, and growth compared to previous years.
- **Monthly & Daily Revenue Trends:**
 - Develop procedures that dynamically report monthly revenue trends, including month-over-month growth.
 - Develop procedures for daily revenue trends with running totals to understand short-term fluctuations.

2. Geographical Insights:

- **Top 10 Countries by Revenue:** Identify which countries are generating the highest total revenue and understand their average transaction values.
- **Performance by Day of Week:** For specific timeframes, analyze transactions, quantity, and revenue per day (using procedures to filter by year, month, or week).

3. Customer Segmentation & Performance:

- **Top 10 Customers by Sale Transaction:** Identify the most valuable customers based on sale transactions.
- **RFM Analysis:** Apply RFM segmentation (Recency, Frequency, Monetary) to understand customer behavior and identify segments such as Champions, Loyal, At Risk, etc.

4. Product Performance & Sales Variance:

- **Top 10 Products by Sales:** Identify products generating the highest revenue.
- **Product Sales Variance Report:** Use procedures to analyze each product's performance by year and month, including total quantity sold, total revenue, average monthly quantity, and variance from mean sales.
- Determine which products have generated the highest revenue and which ones are underperforming.

5. Time-Based Sales Analysis:

- **Performance Over Specific Time Periods:** Evaluate how sales performed in a specific year, month, or week. For example, compare daily sales metrics such as total transactions, total quantity sold, total revenue, average transaction value, number of active days, and average daily revenue.

Expected Deliverables:

• Interactive Dashboards:

- A global sales dashboard that aggregates total revenue, country-wise revenue breakdown, and trends over time (yearly, monthly, daily).
- Drill-down capabilities to view performance by customer segment and product category.

- **Detailed Reports:**

- A report on top-performing countries, customers, and products.
- RFM segmentation report that classifies customers into segments such as Champions, Loyal, Potential Loyalists, etc., to support targeted marketing and retention strategies.
- Product sales variance reports to inform inventory management and product development decisions.

- **Procedures & Automation:**

- SQL procedures for generating dynamic revenue trends (monthly and daily), and for filtering performance data by specific time periods (year, month, week) or geographical regions.