

## Sales Bottleneck Analysis Project

### Project Title

**Sales Bottleneck Analysis using SQL & Power BI**

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### Project Objective

The main objective of this project is to **identify bottlenecks in the sales process** by analyzing:

- Cancelled and returned orders
- Region-wise and category-wise sales performance
- Monthly sales trends
- Product and agent performance

This analysis helps businesses understand **where revenue loss is happening** and **which areas need improvement**.

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### Dataset Overview

**File Name:** RegionalSales2025.csv

**Columns Used:**

- OrderID – Unique order identifier
- Date – Date of transaction
- CustomerID – Unique customer ID
- Region – East, West, North, South
- ProductName – Product sold
- Category – Product category
- Quantity – Units sold

- UnitPrice – Price per unit
  - TotalAmount – Quantity × UnitPrice
  - OrderStatus – Completed / Cancelled / Returned
  - SalesAgent – Assigned sales agent
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## ❖ Tools & Technologies Used

- **SQL** – Data analysis and aggregation
  - **Microsoft Power BI** – Data visualization & dashboarding
  - **CSV Dataset** – Data source
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## Dashboard Components

### 1 Monthly Sales Trend (Line Chart)

- Shows month-wise completed sales
- Helps identify peak and low sales periods

### 2 Region vs Category Sales (Matrix / Heatmap)

- Compares sales performance across regions and product categories
- Highlights weak-performing region-category combinations

### 3 Order Status by Region (Stacked Bar Chart)

- Visual comparison of Completed, Cancelled, and Returned orders
- Helps detect regions with higher cancellations or returns

### 4 KPI Cards

- Total Completed Sales

- Average Order Value
  - Total Cancelled Orders
  - Total Returned Orders
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## Key Data Insights (Sales Bottlenecks)

### 1. Revenue Loss Due to Cancellations & Returns

- Certain regions show higher cancelled and returned orders
- These regions act as **sales bottlenecks** and need operational review

### 2. Product-Level Bottleneck

- Some products have **higher return frequency**, indicating:
  - Quality issues
  - Customer expectation mismatch

### 3. Regional Performance Gap

- Not all regions contribute equally to total sales
- Low-performing regions require better sales strategies

### 4. Sales Agent Impact

- Top-performing sales agents generate most completed revenue
- Training is required for underperforming agents

### 5. Seasonal Sales Trend

- Monthly sales trend shows fluctuations
  - Useful for inventory planning and promotions
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## Business Conclusion

This Sales Bottleneck Analysis helps the business to:

- Reduce revenue leakage due to cancellations and returns
- Improve product quality and customer satisfaction
- Optimize regional sales strategies
- Enhance sales agent performance

By addressing these bottlenecks, the company can **increase efficiency and profitability.**

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### **Final Outcome**

- ✓ Identified sales bottlenecks
  - ✓ Built an interactive Power BI dashboard
  - ✓ Generated actionable business insights
  - ✓ Project ready for academic submission / portfolio
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### **Project By**

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**Course:** BCA (Semester 1)

**Project Type:** Academic / Data Analytics Project