

Pharmaceutical Sales Intelligence Report

Objective

This project aimed to transform raw pharmaceutical sales data into actionable business insights. The goal was to develop an interactive, multi-page dashboard that enables stakeholders to monitor performance across product lines, geographic locations, customer channels, and sales teams. The solution was built using Excel for initial analysis, Python for data preparation, and Power BI for business intelligence and dashboard design.

Tools & Technologies Used

Tool	Purpose
Microsoft Excel	Used for initial data inspection, identifying duplicates, missing values, and structure issues. Also used for basic pivoting and filtering.
Python (Pandas)	Used for data preprocessing, cleaning, formatting, and preparing the data for visualization.
Power BI	Core visualization tool. Used to build a multi-page dashboard with DAX calculations, KPIs, interactive charts, maps (using lat/long), slicers, and navigation buttons.
Dataset	Raw pharmaceutical sales data containing fields such as Distributor, Customer Name, City, Country, Product Name, Product Class, Quantity, Price, Sales, Sales Rep, Month, and Year.

Dashboard Structure

The Power BI dashboard was structured into four key pages, each focused on a different business aspect:

- Sales Overview**
KPIs, sales trends over time, and overall business performance.
- Product Performance**
Analysis of product sales by category and sub-channel, with trend lines and Tree Maps.
- Geographic Sales**
Region-wise and city-level analysis using latitude and longitude. Includes map visuals, city bars, and country-level breakdown.
- Sales Team Performance**
Sales rep and manager analysis through bar charts, stacked team charts, and channel-wise performance matrices.

Business Insights Delivered

Focus Area	Insight
Product Trends	Identified top and low-performing products to support inventory and pricing strategy.
Regional Sales	Highlighted high-performing cities and countries for targeted marketing.
Sales Team	Ranked reps by total sales and evaluated performance by manager and team.
Channel Strategy	Measured sales across Online, Retail, and Wholesale channels.
Customer Value	Identified high-value customers for loyalty focus and deeper engagement.

Outcome

The dashboard serves as a business intelligence solution that enables sales and marketing teams to:

- Monitor performance metrics in real time
- Identify revenue-driving products and regions
- Evaluate and support sales team efforts
- Make data-informed decisions for strategy and execution

This project demonstrates my ability to execute a complete BI workflow — from raw data cleaning to professional dashboard delivery — using modern tools and business logic.

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