

Product Sales Analytics Project

1. Project Overview

Objective:

The goal of this project is to analyze delivery data from an e-commerce business to gain insights into sales trends, regional performance, and pricing strategies. The project aims to assist in decision-making for optimizing delivery operations and improving customer satisfaction.


Tools Used:

- **Google Sheets** for data analysis and visualization
- **StatsO.io** dataset in CSV format, later converted to Excel
- **Excel functions and pivot tables** for calculations

2. Dataset Information

Source:

The dataset was sourced from the following:

- [StatsO RFM Analysis Case Study](#)
- [Google Drive File](#)
-  `rfm_data`

Key Attributes:

- **Order ID** – Unique identifier for each transaction
- **Product Name** – Name of the product sold
- **Category** – Product category
- **Purchase Date** – Date when the order was placed
- **Delivery Date** – Date when the product was delivered
- **Region** – Delivery location
- **Price** – Product price
- **Quantity Sold** – Number of units sold

3. Data Cleaning & Processing

Steps Taken:

- Removed duplicate records to ensure accuracy
- Handled missing values by using median imputation for price and quantity
- Standardized date formats for better time-series analysis

4. Key Insights & Analysis

Sales Trend by Date

- Observed fluctuating daily sales trends with certain peak periods
- Identified specific dates with highest and lowest sales volumes

Sales Ratio by Product

- Product C has the highest sales percentage (27.7%)
- Product A and Product B contribute nearly equal sales (22.5% and 24.5%, respectively)

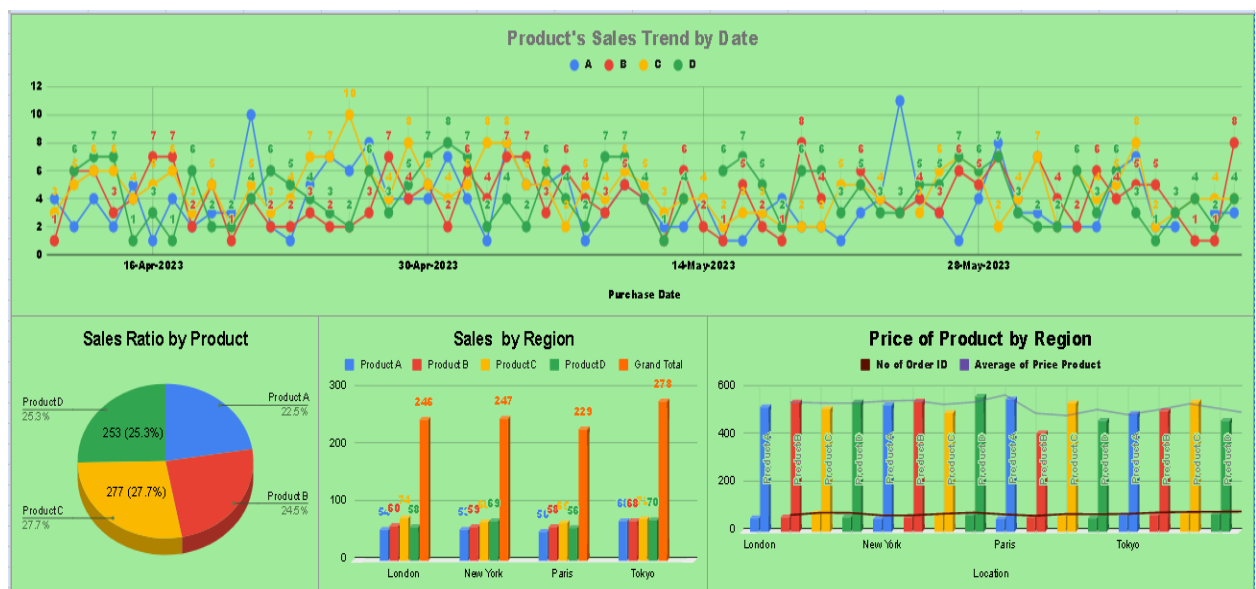
Sales by Region

- **Tokyo** has the highest sales, followed by **New York**
- London shows relatively lower sales, indicating potential for market expansion

Price of Product by Region

- Higher product prices in certain regions correlate with fewer orders
- Lower-priced products see higher order volumes

5. Dashboard Visualizations



The dashboard includes key charts and graphs to illustrate trends and insights:

- **Product Sales Trend by Date** (Line Chart)
- **Sales Ratio by Product** (Pie Chart)
- **Sales by Region** (Bar Chart)
- **Price of Product by Region** (Stacked Bar Chart)

6. Conclusion & Recommendations

Findings:

- Sales trends vary significantly by date and region
- Certain products outperform others, suggesting popular demand
- Pricing impacts sales volume across different locations

Recommendations:

- Focus marketing efforts on high-performing regions like Tokyo and New York
- Consider price adjustments for low-sales regions
- Monitor peak sales periods to optimize inventory management

This document serves as a comprehensive analysis of the product sales dataset, providing actionable insights for business decision-making.

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