Exploratory Data Analysis (EDA) Report

Introduction

This dataset contains sales transactions of a company dealing with various product lines such as Classic Cars, Motorcycles, Planes, Ships, Trains, Trucks and Buses, and Vintage Cars.
The objective of this analysis is to explore the data, identify key sales patterns, and build KPIs for business insights using Excel.

Data Understanding

The dataset includes the following important fields:

- Order Number
- Sales Amount
- Product Line
- Order Date
- Customer Details
- Sales

The data was cleaned and organized to perform analysis using Pivot Tables and KPI metrics.

Pivot Table Analysis (Product Line)

A Pivot Table was created to analyze total sales by Product Line.

From the pivot table, it was observed that:

- **Classic Cars** generated the highest sales (₹ 391,615.66)
- **Vintage Cars** is the second highest contributor (₹ 190,350.84)
- **Trains** and **Ships** contributed the least to total sales.

This indicates that the business performs strongly in the Classic and Vintage car segments.

A	B
Row Labels	**Sum of SALES**
Classic Cars	3919615.66
Motorcycles	1166388.34
Planes	975003.57
Ships	714437.13
Trains	226243.47
Trucks and Buses	1127789.84
Vintage Cars	1903150.84
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Grand Total	**10032628.85**

In addition to Excel analysis, SQL queries were also used to explore the dataset.
SQL was used to retrieve important insights such as total sales, number of orders, and sales by product line.

This helped in validating the results obtained from Excel and ensured accurate analysis of the data.

Charts:

The charts clearly show the comparison of sales between each category.

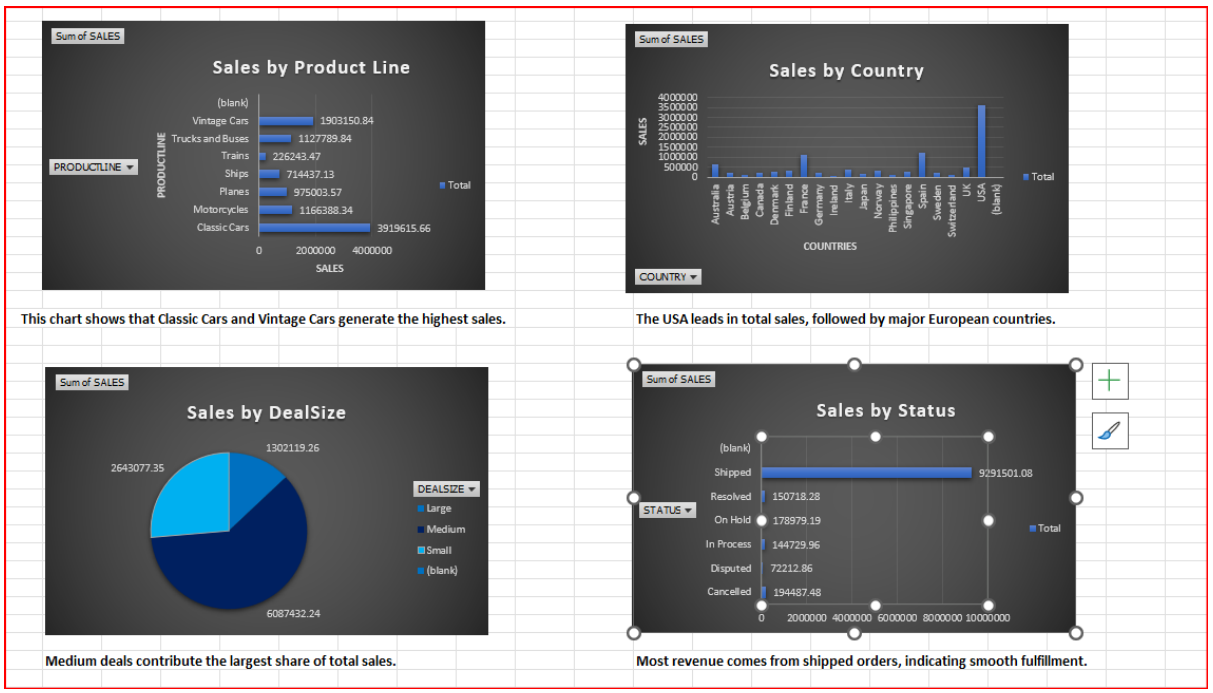
1.From the visuals, Classic Cars stands out as the highest revenue-generating product line.

2.Vintage Cars is the second major contributor to total sales. Product lines like Ships and Trains show comparatively lower sales performance.

3.The charts make it easy to understand how each category contributes to overall revenue.

4.These visualizations help in quickly identifying top-performing and low-performing segments.

Overall, the charts provide a clear graphical understanding of the sales distribution in the dataset.



This chart shows that Classic Cars and Vintage Cars generate the highest sales.

The USA leads in total sales, followed by major European countries.

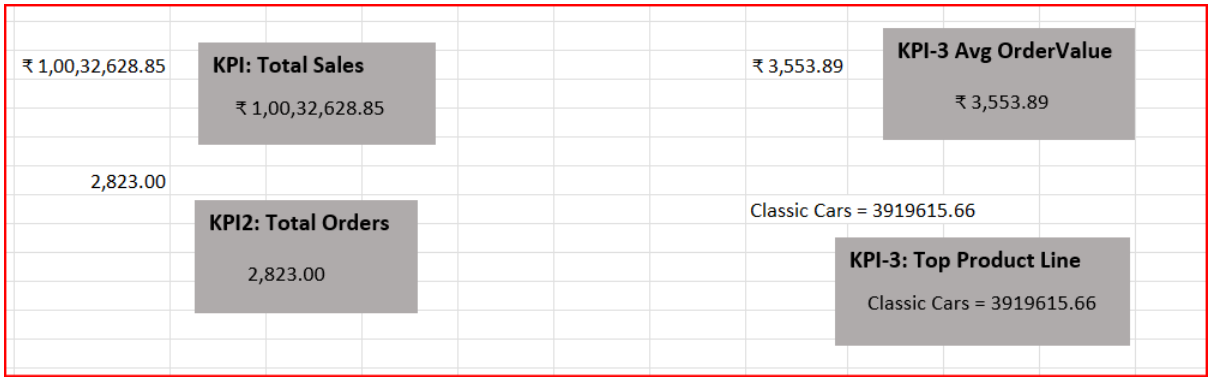
Medium deals contribute the largest share of total sales.

Most revenue comes from shipped orders, indicating smooth fulfillment.

KPI Metrics Created

The following Key Performance Indicators (KPIs) were created in the dashboard sheet:

KPI	Description	Formula Used
Total Sales	Overall revenue generated	SUM(Sales)
Total Orders	Total number of orders placed	COUNT(OrderNumber)
Average Order Value	Revenue per order	Total Sales / Total Orders
Top Product Line	Product line with highest sales	Pivot Table reference



Key Insights

- The company generated total sales of **₹ 1,003,268.85**
- A total of **2,823 orders** were placed.
- The **average order value** is **₹ 355.89**
- Classic Cars and Vintage Cars are the top-performing product lines contributing the highest share of total sales.

Dashboard Creation

A dashboard sheet was created using shapes and cell references to visually present KPIs. The dashboard dynamically updates when the data changes.

Conclusion

The EDA reveals that the majority of revenue comes from Classic Cars and Vintage Cars. The KPIs and pivot analysis help in understanding business performance and identifying key revenue-driving product lines.