Car Sales Performance Dashboard – Case Study

Overview

This project analyzes car sales data using **Power BI** to uncover brand performance, sales distribution, and model-wise insights. The interactive dashboard enables quick decision-making by providing a clear view of total sales, average sales per model, and top manufacturers.

Objectives

- Track **total sales** and **average sales per model**.

- Compare **brand-wise performance**.

- Identify **above and below average performing models**.

- Build an **interactive dashboard** with filters for manufacturers.

Dataset Source

- **Source:** [Car Sales Dataset – Kaggle](#)

- **Key Fields Used in Analysis:**

  - `Manufacturer` – Car brand

  - `Model` – Car model name

  - `Sales_in_thousands` – Sales volume

  - `__year_resale_value` – Estimated resale value after 1 year

  - `Vehicle_type` – Passenger / SUV

  - `Price_in_thousands` – Vehicle price

  - `Engine_size` – Engine displacement

- ○ `Horsepower` – Engine power

- ○ `Wheelbase`, `Width`, `Length` – Vehicle dimensions

- ○ `Curb_weight` – Weight of the vehicle

- ○ `Fuel_capacity` – Tank capacity

- ○ `Fuel_efficiency` – Miles per gallon

- ○ `Latest_Launch` – Launch date of model

- ○ `Power_perf_factor` – Derived performance index

Tools & Techniques

- **Power BI** (Data modeling, DAX, and visualization)

- **DAX Measures** for KPIs like Total Sales, Avg Sales per Model

- **Power Query** for data cleaning and transformations

- **Visuals:** KPI cards, tables, bar charts, slicers

Dashboard Features

- **KPIs:**

  - ○ Average Sales per Model: **53**

  - ○ Total Sales: **8.32K**

- **Table View:** Manufacturer, model, and performance category (*Above Avg / Below Avg*).

- **Bar Chart:** Total sales by manufacturer.

- **Filter (Slicer):** Drill down to analyze specific manufacturers.
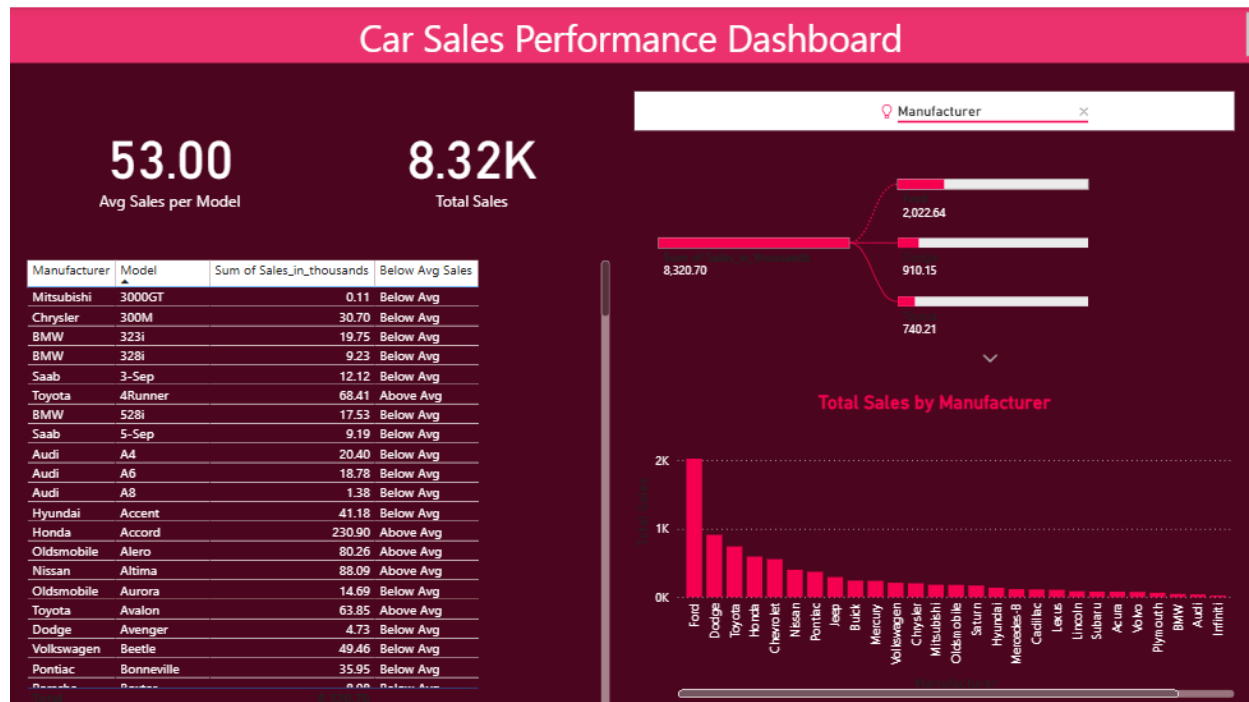
Key Findings

1. **Overall Sales Performance**

   - Total sales reached **8.32K units** across all brands.

   - The **average sales per model** is **53 units**.

2. **Top Manufacturers**

   - **Ford, Dodge, and Toyota** are the top-performing brands with the highest sales.

3. **Premium Brands**

   - **BMW and Audi** have lower unit sales but contribute significant revenue due to premium pricing.

4. **Model-Level Insights**

   - Models such as **Mitsubishi 3000GT, Saab 3-Sep, and Chrysler 300M** show **below-average sales**.

- ○ Models like **Honda Accord** and **Toyota Avalon** performed **above average**, strengthening brand position.

5. **Market Distribution**

- ○ A small group of brands dominates sales, while many others capture minimal market share.

- ○ Indicates potential for **niche strategies** by underperforming brands.

Outcome

The dashboard provides a **clear and interactive view of sales performance**, helping stakeholders:

- Identify top-performing brands.

- Focus on improving underperforming models.

- Support data-driven strategies to boost sales.