EV MARKET SEGMENTATION ANALYSIS

This study presents a thorough segmentation analysis of the Electric Vehicle (EV) market, leveraging data from two distinct datasets encompassing specifications and prices. By employing Exploratory Data Analysis (EDA) and advanced visualization techniques, I derived actionable insights into the EV landscape, shedding light on market trends and consumer preferences.

* Range of vehicle is proportional to Battery Pack Capacity
* Price of vehicle is proportional battery pack capacity
* EV's which cost less have higher acceleration (0-100 Km/hr) time in order to maximize range
* High performance EV's have lower efficiency
* Most of the vehicles costing less than 50,000 Euros are Front Wheel Drive
* Most of the vehicles costing over 50,000 Euros are either All wheel drive or Rear wheel drive and have better acceleration
* The Scatter plot Battery Vs range is proportional and the price of the vehicle is increasing if Battery capacity is increasing.

**Final Conclusion**

The EV market is segmented to cater to different consumer preferences and budget constraints. Key insights include:

**Budget Segment (Under 50,000 Euros):**

* Focus on maximizing range and cost-efficiency.
* Predominantly FWD configurations.
* Higher acceleration times as a trade-off for range efficiency.

**Premium Segment (Over 50,000 Euros):**

* Emphasis on superior performance and driving dynamics.
* Predominantly AWD or RWD configurations.
* Better acceleration but lower overall efficiency.

These trends indicate that while budget-friendly EVs are designed for practical, cost-effective transportation with extended range, premium EVs are engineered for performance-oriented consumers willing to invest more for advanced features and driving experiences.

# Dataset 1: EV\_clean\_me

**Dataset 2:EV\_tech\_specs**

**EDA:** [**https://github.com/Sravani0099/EV\_Analysis**](https://github.com/Sravani0099/EV_Analysis)