A graph with a blue line

Description automatically generated with medium confidence

The above distribution shows the pattern of how subsidies are given, with modal values being less, however hinting three different patterns, which can be binned as no subsidy, mediocre subsidies and high subsidies

A white board with a black border

Description automatically generated with medium confidence

The petrol and diesel taxes are significantly higher compared to road taxes

A screenshot of a computer screen

Description automatically generated

A significant positive correlation exists between the prices of petrol and diesel in the market

A screenshot of a graph

Description automatically generated

Results of various clustering algorithms

A white board with colorful dots

Description automatically generated

A screen shot of a white board

Description automatically generated

* Cluster 0 includes states like Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, and Puducherry, characterized by high petrol prices but low diesel prices.

Cocnlusions:

* Cluster 1 consists of states like Chhattisgarh, Jharkhand, Meghalaya, and Tripura, with high petrol and diesel prices.
* Cluster 2 comprises states like Karnataka, Kerala, Uttar Pradesh, and Punjab, which have no subsidies and low road tax rates.
* Cluster 3 includes states like Andhra Pradesh, Madhya Pradesh, Odisha, and Telangana, characterized by no subsidies but high road tax rates.
* Cluster 4 consists of states like Delhi, Ladakh, Rajasthan, and Sikkim, with moderate petrol and diesel prices.
* Cluster 5 encompasses states like Jammu and Kashmir, Mizoram, Uttarakhand, and Lakshadweep, which have low petrol and diesel prices.
* Cluster 6 includes states like Goa, Gujarat, Haryana, and Tamil Nadu, with moderate subsidies and low road tax rates.
* Cluster 7 comprises states like Arunachal Pradesh, Manipur, Nagaland, and Puducherry, with low petrol prices but high diesel prices. Cluster 8 consists of states like Assam, Bihar, Maharashtra, and West Bengal, which receive the highest subsidies and have high road tax rates.

The categorization of states into clusters based on subsidy levels, road tax rates, and fuel prices is relevant in the context of planning the sale of electric vehicles (EVs) by a company. Understanding the different incentives and cost factors across states allows the company to strategize its market entry and distribution channels effectively. For instance, states in Cluster 8 with high subsidies and road tax rates might be prioritized for initial sales due to the favorable financial incentives for EV buyers. Conversely, states in Cluster 3 with high road tax rates but no subsidies may require different marketing and pricing strategies to encourage adoption. Similarly, states in Clusters 5 and 7 with low fuel prices might present unique challenges or opportunities for promoting EVs compared to states with higher fuel prices. By analyzing these clusters, the company can tailor its approach to maximize the uptake of EVs in different regions of India.