Power BI Dashboard Detailed Report

1. Executive Summary

The Power BI dashboard for EcoDrive is created to offer deep insights into the expansion of electric vehicles in the Indian market. The dashboard will integrate customer demographics, regional performance metrics, competitor analysis, and product offering optimization to guide data-driven decision-making. The main objectives are enhancing EV adoption, optimizing charging infrastructure, improving market penetration, and developing targeted marketing strategies.

2. Dashboard Structure & Visualizations

The dashboard can be divided into 3 key sections:

- → Customer Insight Analysis
- → Competitor & Pricing
- → Strategy for Growth

3. Customer Segmentation Insights

Customer Age Group Analysis: Show the age demographics and align them with interest levels and income.

Income Group Analysis: Show income brackets, such as low, medium, and high, along with EV interest.

Feature Preference Breakdown: Show which EV features (e.g., long range, fast charging, environmental benefits) are most important to each customer segment.

Financing Preferences: Highlight customers' financing preferences for EVs, such as low-interest rates, installment plans, or down payment preferences.

Insights:

The most interested age groups are 25-34 and 35-44, which will likely adopt EVs because they have disposable income.

High-income groups prefer premium features, and price-sensitive young consumers need financing options that will make EVs more affordable.

Top EV Features are fast charging, environmental benefits, and affordability.

4. Regional Performance & Infrastructure Insights

EV Adoption Rate by Region: Track adoption rates across different regions.

Charging Station Utilization: Monitor the usage rates of existing charging stations across regions.

Downtime Metrics: Show regions with high charging station downtime (for example, regions facing service interruptions).

CO_2 Emitted-Saved by Region: Calculate the savings on CO_2 emissions due to EVs in different regions.

Energy Costs by Region: Analyze the energy costs and how it may impact charging prices.

Insights:

High Adoption Areas: Region-25, Region-45, and Region-76 are leading, but these need to be studied for future infrastructure requirements to support growth.

Low Adoption Areas: Focus on regions with potential that is yet to be tapped, such as Region-21, and invest in charging stations and marketing.

Charging Station Efficiency: Regions like Region-53 have high utilization rates but need improvement in downtime metrics.

5. Competitor Pricing & Market Share Insights

Market Share by Competitor: Monitor the amount of market that EcoDrive grabs compared to large competitors Brand A, Brand B, etc.

Pricing Strategy Comparison: Determine how much competition there is when comparing EcoDrive's price in comparison to competing prices.

Price Elasticity: Illustrate and show sensitivity regarding price elasticity different regions or different customer groups react to price

Pie Chart: Present market share by brand, including EcoDrive compared to the competitors.

Pricing Comparison Bar Chart: Present pricing of EcoDrive compared to its competitors across different regions.

Bubble Chart: Present competitors on price vs. market share with sales volume represented as size.

6. Optimization of Pricing Strategy

Price Sensitivity by Region: Determine the price sensitivity of customers by region to understand where EcoDrive can afford to be more premium.

Optimal Pricing Bands: Illustrate pricing bands based on customer segment (basic, mid-tier, and premium).

Impact of Financing Options on Price Sensitivity: Determine how various financing structures, such as installment plans and low interest rates, can modify the price perception.

Insights:

Pricing flexibility, like offering affordable financing, will be key to getting a foothold in price-sensitive regions.

Premium model should be marketed in less competitive regions and affordable models should target more saturated areas.

7. Actionable Strategy Recommendations

Based on the insights from the dashboard, you should propose the following actions:

1. Customer Segmentation Strategy:

Target the 25-44 age ranges with higher incomes and have an interest in EV features such as fast charging, eco-benefits.

Flexible financing options for price-sensitive customers, especially those younger than 35 years

2. Regional Infrastructure Investments:

Charging infrastructure investments in high-potential, underserved regions like Region-21 and Region-45

Enhance station uptime in regions with higher downtime, such as Region-21 to achieve high customer satisfaction and higher utilization of stations.

3. Competitor and Pricing Adjustments:

Competing Price: Where competitor's strength is strong such as in Brand A and Brand B regions, maintain your premium price. Where there is less competition, maintain your premium price.

Unique Selling Propositions: Use the factors of rapid charging and sustainability as persuaders to charge more in certain markets.

4. Campaign Strategies:

Age groups 25-44 for campaigns

Fast charging and green saving

Financing options - targeting a younger more price-conscious consumer

8. Conclusion & Next Steps:

Brand A and Brand B are leaders in premium pricing markets, leaving the opportunity for EcoDrive to gain a share with competitive pricing, targeting price-sensitive consumers.

Price based on the competitive landscape. Price is more competitively in high-competition areas.

Price based on fast charging and environmental benefits in low-competition areas.

Optimization of pricing, considering competitor study.

High potential customer segments, and Regions-specific infrastructure along with marketing plan.

Regional market studies and customer profiling validation

Discussing attractive options for EV finance with financial organizations

Invest in the expansion of charging infrastructure.

Using the Power BI dashboard, EcoDrive can derive actionable insights on customer behavior, regional dynamics, competitor strategies, and more. This will enable them to make data-backed decisions and optimize their approach to EV market expansion in India.