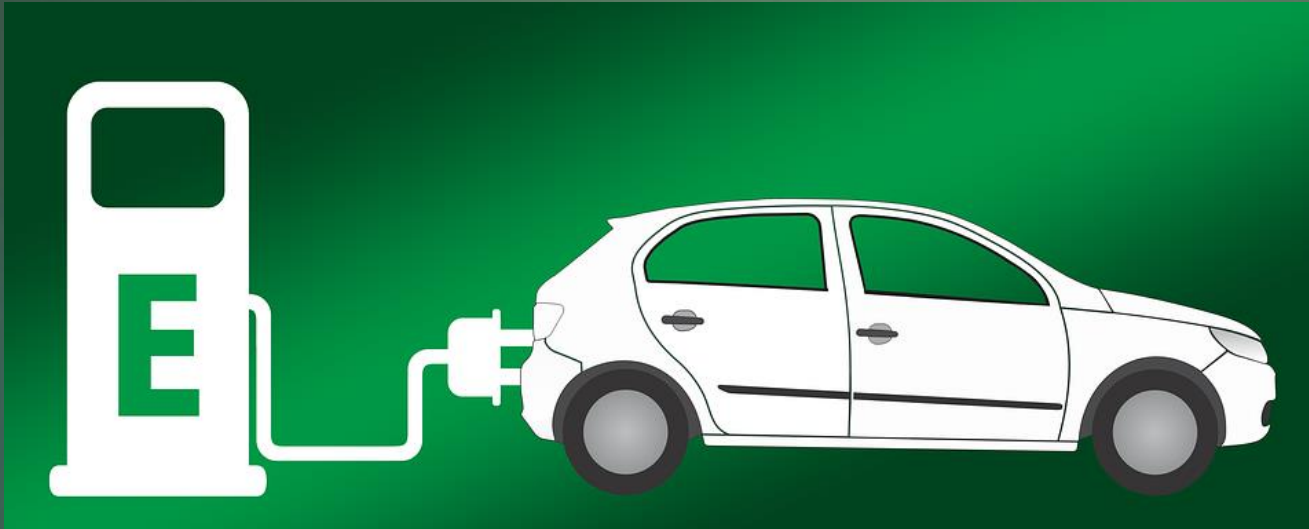


Electric Vehicle Sales Analysis of India Across States



LINKEDIN



GITHUB

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Project Overview & Problem Statement

PROBLEM STATEMENT:

INDIA'S EV MARKET IS GROWING RAPIDLY, BUT LACKS CLEAR INSIGHTS ON:

- VEHICLE TYPES DRIVING GROWTH
- TOP-PERFORMING STATES AND MONTHS
- LONG-TERM SALES TRENDS AND RECENT SLOWDOWNS

OBJECTIVE:

ANALYZE EV SALES DATA USING POWER BI TO UNCOVER:

- SALES TRENDS OVER TIME
- MOST POPULAR EV TYPES AND CATEGORIES
- REGIONAL AND SEASONAL PERFORMANCE PATTERNS

Dataset Overview

Column Name

Date

Year

Month_Name

EV_Sales_Quantity

State

Vehicle_Type

Vehicle_Category

Description

Full date of EV registration/sale

Extracted year from the date

Month name (e.g., Jan, Feb, etc.)

Total number of EVs sold

Indian state where the EVs were sold

Specific type of vehicle (e.g.,
2W_Personal, 3W_Shared_LowSpeed)

Broader category (e.g., 2-Wheelers, 3-
Wheelers, etc.)

Process

DATA PREP:

- LOADED CLEANED CSV
- EXTRACTED YEAR & MONTH FOR TIME ANALYSIS

VISUALS:

- LINE: YEARLY SALES TREND
- BAR: SALES BY VEHICLE TYPE
- DONUT: VEHICLE CATEGORY SHARE
- MAP: STATE-WISE SALES
- COLUMN: MONTHLY VARIATION
- KPI CARD: TOTAL EV SALES

KEY METRICS:

- TOTAL EV SALES

GOAL:

- REVEAL ADOPTION TRENDS
- SUPPORT DATA-DRIVEN EV PLANNING

1. What is the total number of EVs sold in India?

ANSWER: 4 MILLION UNITS.

INSIGHT: INDIA HAS ACHIEVED SIGNIFICANT EV PENETRATION, INDICATED GOVERNMENT POLICY SUPPORT AND GROWN PUBLIC INTEREST.

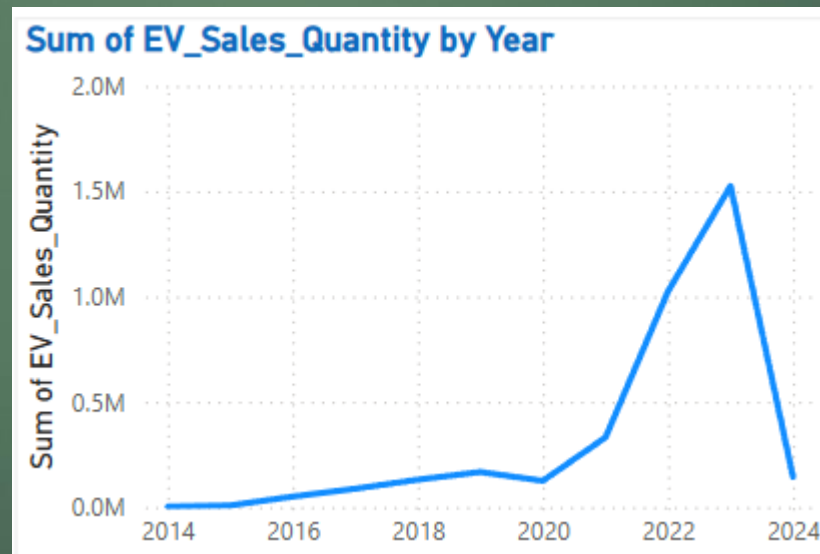
Sum of EV_Sales_Quantity

4M

2. What is the trend of EV sales over the years?

ANSWER: STEADY GROWTH FROM 2014 TO 2021, WITH A MAJOR SPIKE IN 2022. A NOTICEABLE DROP IN 2024.

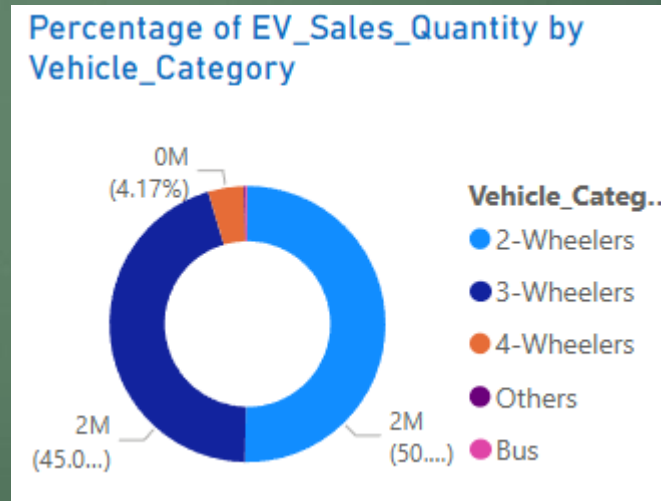
INSIGHT: 2022 WAS A PEAK YEAR, SUGGESTING AGGRESSIVE ADOPTION. THE DROP IN 2024 MAY NEED INVESTIGATION (DATA INCOMPLETE OR MARKET STABILIZATION?).



3. Which EV category dominates the Indian market?

ANSWER: 2-WHEELERS DOMINATE EV SALES (50 %)

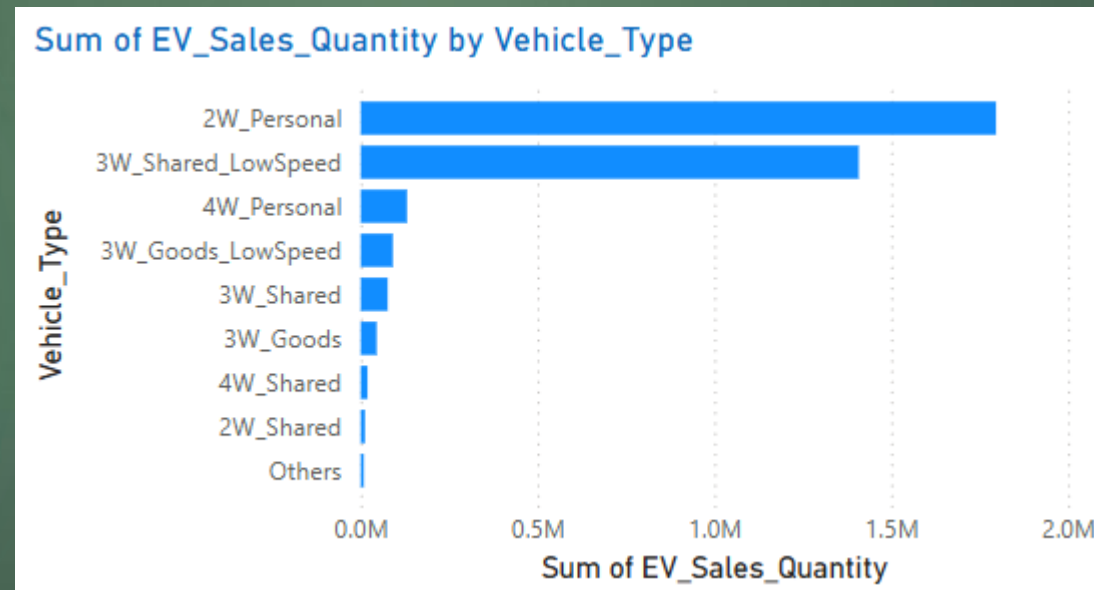
INSIGHT: 2-WHEELERS ARE THE MOST POPULAR EV TYPE DUE TO AFFORDABILITY AND HIGH URBAN DEMAND.



4. What are the top EV types in terms of sales?

ANSWER:1ST: 2W_PERSONAL2ND: 3W_SHARED_LOWSPEED3RD:
4W_PERSONAL

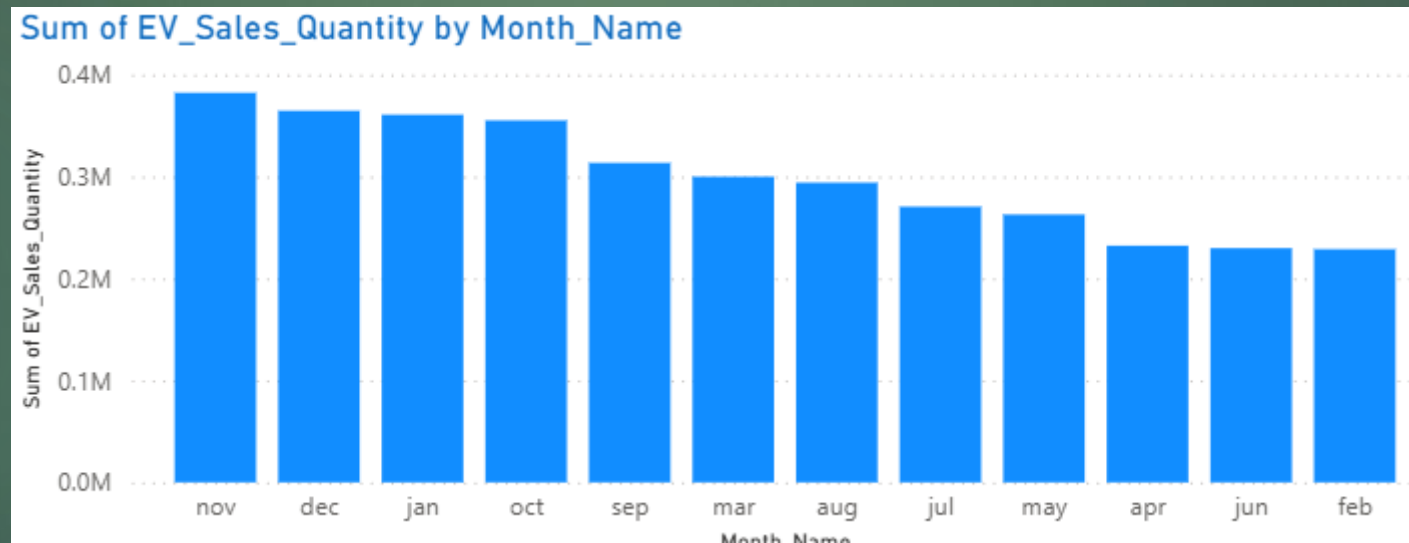
INSIGHT: PERSONAL MOBILITY LEADS EV ADOPTION. PUBLIC TRANSPORT
(LIKE 3W SHARED) ALSO PLAYS A CRITICAL ROLE IN THE ECOSYSTEM.



5. Which months record the highest EV sales?

ANSWER: NOVEMBER TO JANUARY HAVE THE HIGHEST SALES VOLUMES.

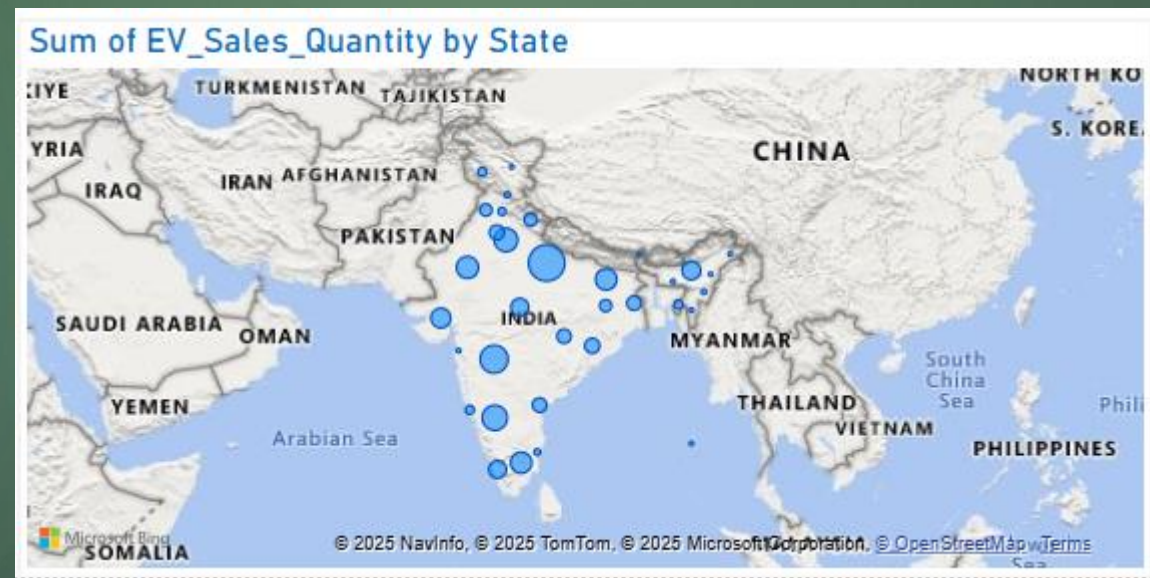
INSIGHT: SALES ARE SEASONAL, PEAKING POST-MONSOON AND DURING FESTIVE SEASONS (E.G., DIWALI PROMOTIONS, YEAR-END OFFERS).



6. Which states contribute the most to EV sales?

ANSWER: STATES LIKE DELHI, MAHARASHTRA, KARNATAKA, AND TAMIL NADU APPEAR MOST PROMINENTLY ON THE MAP.

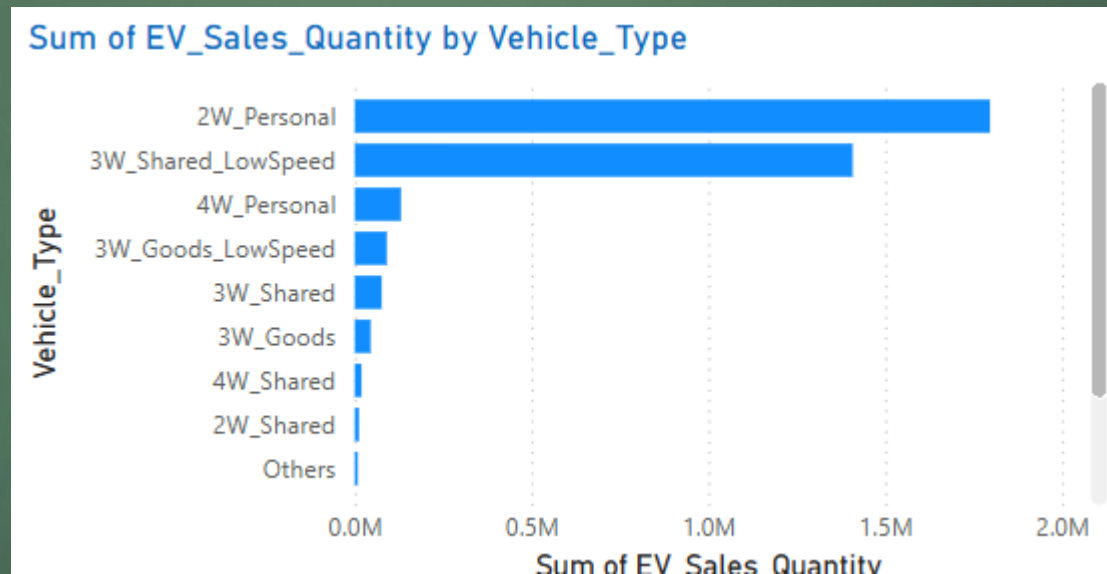
INSIGHT: URBANIZED, INDUSTRIAL, AND POLICY-PROGRESSIVE STATES ARE DRIVING EV GROWTH.



7. How does the share of 3-wheelers and 4-wheelers compare to 2-wheelers?

ANSWER: 3W AND 4W SEGMENTS ARE SIGNIFICANTLY SMALLER.

INSIGHT: WHILE GROWING, THEY STILL FACE CHALLENGES LIKE COST, CHARGING INFRA, AND LIMITED MODELS.



8. What's the diversity in EV vehicle types?

ANSWER: THERE ARE MULTIPLE VEHICLE TYPES—PERSONAL, SHARED, GOODS—ACROSS 2W, 3W, AND 4W.

INSIGHT: INDIA'S EV ECOSYSTEM SERVES PERSONAL, COMMERCIAL, AND LOGISTICS NEEDS, BUT PERSONAL USE LEADS

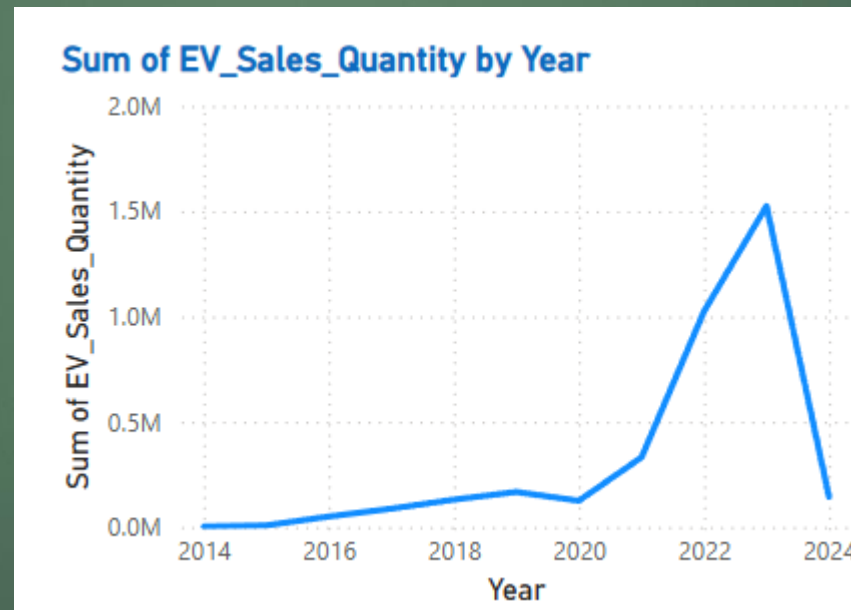


2W_Personal
3W_Shared_LowSpeed
4W_Personal
3W_Goods_LowSpeed
3W_Shared
3W_Goods
4W_Shared
2W_Shared
Others

9. What does the sales dip in 2024 indicate?

ANSWER: A NOTICEABLE DROP.

INSIGHT: COULD BE DUE TO INCOMPLETE DATA, POLICY SHIFTS, OR SUPPLY CHAIN ISSUES. NEEDS CLARIFICATION FOR ACCURATE FORECASTING.



Conclusion

THE ELECTRIC VEHICLE MARKET IN INDIA HAS SHOWN TREMENDOUS GROWTH, ESPECIALLY IN THE 2-WHEELER AND 3-WHEELER SEGMENTS. MAJOR URBAN STATES ARE LEADING ADOPTION, AND SALES TEND TO PEAK DURING FESTIVE MONTHS. HOWEVER, THE DECLINE IN 2024 RAISES QUESTIONS THAT NEED DEEPER EXPLORATION—WHETHER IT'S DUE TO DATA GAPS, POLICY CHANGES, OR MARKET SATURATION. OVERALL, INDIA'S EV ECOSYSTEM IS DIVERSIFYING AND MATURING, WITH CLEAR SIGNS OF BECOMING A GLOBAL LEADER IN GREEN MOBILITY.