

EV SALES OVERVIEW



Total EV sold:

2.07M

Total Revenue(EV):

₹ 392 B

YoY
Growth%(EV)

97.43%

market
penetration%

3.61%

EV SALES BY YEAR



vehicle_c...

- 2-Wheelers
- 4-Wheelers

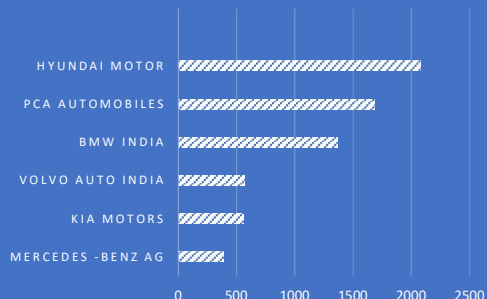
Fiscal Year

- 2022
- 2023
- 2024

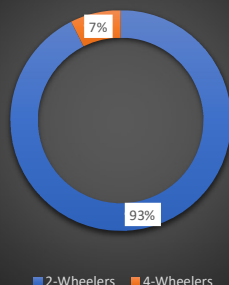
quarter

- Q1
- Q2
- Q3
- Q4

TOTAL EV SOLD BY MAKERS



EV SALE% BY CATEGORY



TOTAL EV SOLD BY STATES

Sr no	States	Total EV sold	Total Revenue
1	Maharashtra	396.05K	₹ 79.34B
2	Karnataka	313.00K	₹ 55.85B
3	Kerala	137.06K	₹ 34.95B
4	Delhi	107.31K	₹ 34.78B
5	Tamil Nadu	200.06K	₹ 32.86B
6	Gujarat	181.39K	₹ 32.16B
7	Rajasthan	150.37K	₹ 24.02B
8	Uttar Pradesh	95.20K	₹ 16.64B
9	Andhra Pradesh	77.42K	₹ 11.28B
10	Madhya Pradesh	78.98K	₹ 10.42B
11	Odisha	78.27K	₹ 9.74B
12	West Bengal	30.56K	₹ 9.24B

Notes:

* Data Representing Indian Automobile Market

* Data Range : FY22-FY24

* All Sales figures are in INR

* Average Price for EV considered as Below:

I) 2 Wheeler : 85,000 INR

II) 4 Wheeler : 15,00,000 INR

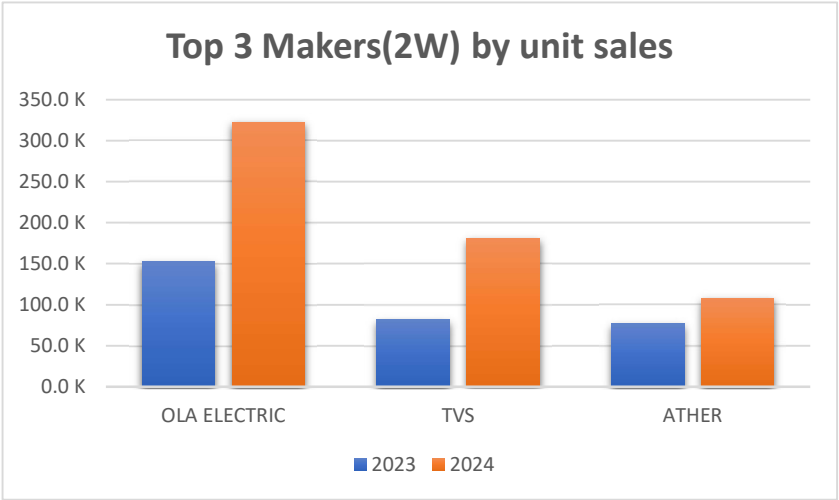


Problem Statement:
List the top 3 and bottom 3 makers for the fiscal years 2023 and 2024 in terms of the number of 2-wheelers sold.

Top 3 Makers(2W) by unit sales

Vehicle Category	2-Wheelers
Fiscal Quarter	All

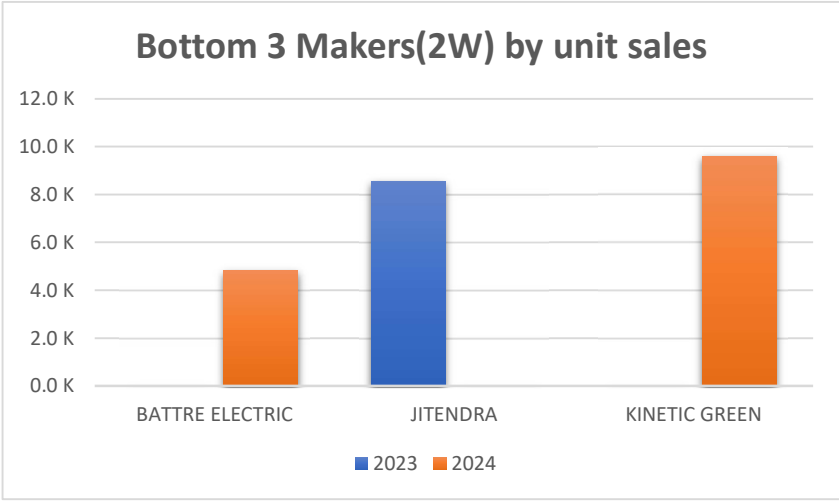
EV Maker	Fiscal Year	
	2023	2024
OLA ELECTRIC	152.6 K	322.5 K
TVS	82.1 K	180.7 K
ATHER	76.9 K	107.6 K



Bottom 3 Makers(2W) by unit sales

Vehicle Category	2-Wheelers
Fiscal Quarter	All

EV Maker	Fiscal Year	
	2023	2024
BATTRE ELECTRIC	0.0 K	4.8 K
JITENDRA	8.6 K	0.0 K
KINETIC GREEN	0.0 K	9.6 K



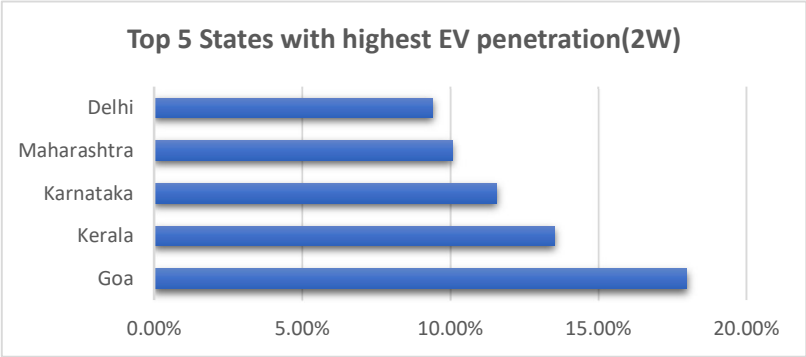


Problem Statement:

Identify the top 5 states with the highest penetration rate in 2-wheeler and 4-wheeler EV sales in FY 2024.

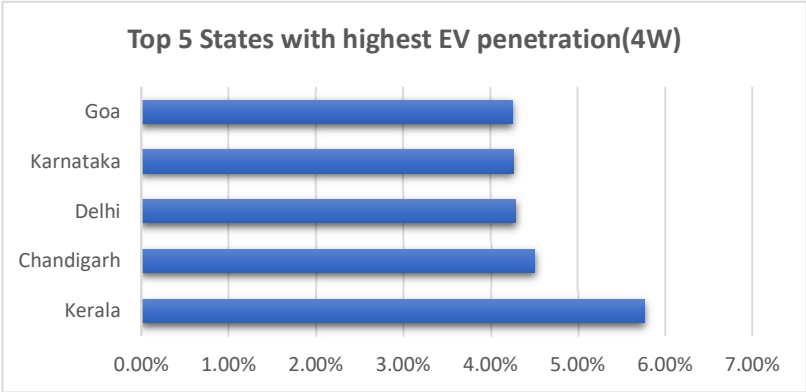
Top 5 States with highest EV penetration(2W)	
Vehicle Category	2-Wheelers
Fiscal Year	2024

State	EV Market penetration%
Goa	17.99%
Kerala	13.52%
Karnataka	11.57%
Maharashtra	10.07%
Delhi	9.40%



Top 5 States with highest EV penetration(4W)	
Vehicle Category	4-Wheelers
Fiscal Year	2024

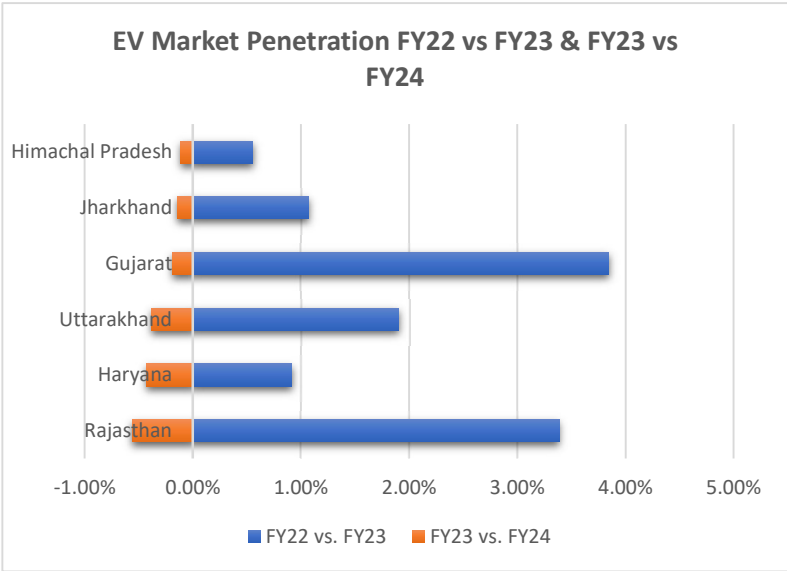
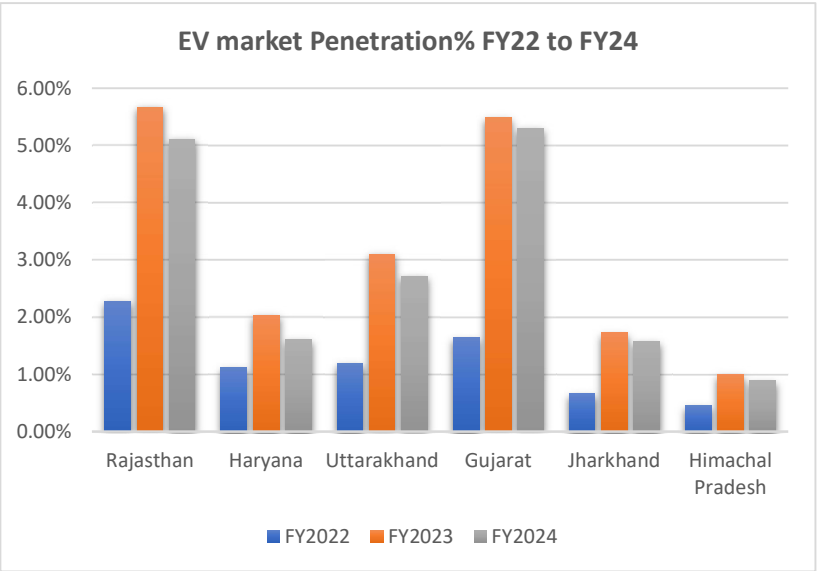
State	EV Market penetration%
Kerala	5.76%
Chandigarh	4.50%
Delhi	4.29%
Karnataka	4.26%
Goa	4.25%





Problem Statement:
List the states with negative penetration (decline) in EV sales from 2022 to 2024?

	EV market Penetration% FY22 to FY24						EV Market Penetration FY22 vs FY23 & FY23 vs FY24			
states	FY2022		FY2023		FY2024		FY22 vs. FY23		FY23 vs. FY24	
Rajasthan	<div></div>	2.28%	<div></div>	5.67%	<div></div>	5.11%	<div></div>	3.39%	<div></div>	-0.56%
Haryana	<div></div>	1.12%	<div></div>	2.04%	<div></div>	1.61%	<div></div>	0.92%	<div></div>	-0.43%
Uttarakhand	<div></div>	1.20%	<div></div>	3.10%	<div></div>	2.72%	<div></div>	1.90%	<div></div>	-0.39%
Gujarat	<div></div>	1.65%	<div></div>	5.49%	<div></div>	5.30%	<div></div>	3.84%	<div></div>	-0.19%
Jharkhand	<div></div>	0.66%	<div></div>	1.73%	<div></div>	1.58%	<div></div>	1.07%	<div></div>	-0.15%
Himachal Pradesh	<div></div>	0.45%	<div></div>	1.00%	<div></div>	0.90%	<div></div>	0.55%	<div></div>	-0.11%





Problem Statement:

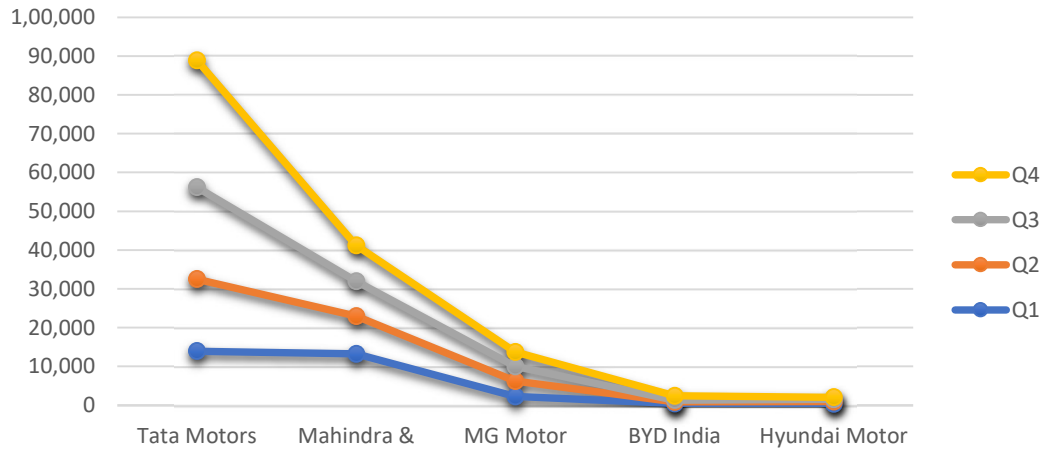
What are the Quarterly trends based on sales volume for the top 5 EV makers(4-wheelers) from 2022 to 2024?

Top 5 EV Makers based on Quartly sales volume from FY22 to FY24

Fiscal Year	All
Vehicle Category	4-Wheelers

Fiscal Quarter								
EV Maker	Q1		Q2		Q3	Q4		
Tata Motors	<div></div>	13,953	<div></div>	18,581	<div></div>	23,678	<div></div>	32,723
Mahindra & Mahindra	<div></div>	13,286	<div></div>	9,670	<div></div>	9,025	<div></div>	9,212
MG Motor	<div></div>	2,309	<div></div>	3,957	<div></div>	3,766	<div></div>	3,721
BYD India	<div></div>	487	<div></div>	423	<div></div>	454	<div></div>	1,055
Hyundai Motor	<div></div>	392	<div></div>	579	<div></div>	586	<div></div>	519

Top 5 EV Makers based on Quartly sales volume from FY22 to FY24

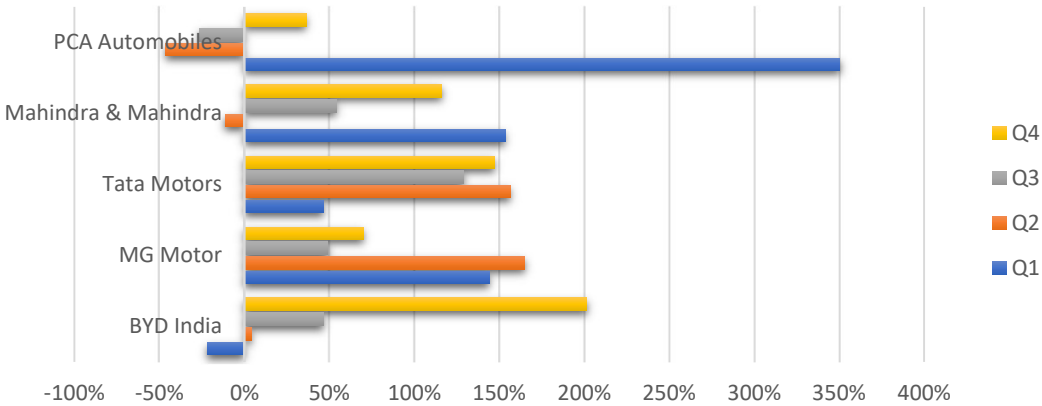


Top 5 EV Makers based on Quarter over Quarter sales growth% from FY22 to FY24

Fiscal Year	All
Vehicle Category	4-Wheelers

Fiscal Quarter				
EV Maker	Q1	Q2	Q3	Q4
BYD India	-21.83%	4.19%	46.45%	201.43%
MG Motor	144.08%	165.04%	49.21%	69.91%
Tata Motors	46.44%	156.40%	129.06%	147.23%
Mahindra & Mahindra	153.40%	-11.37%	54.14%	116.04%
PCA Automobiles	350.33%	-46.18%	-26.23%	36.30%

Top 5 EV Makers based on Quarter over Quarter sales growth% from FY22 to FY24

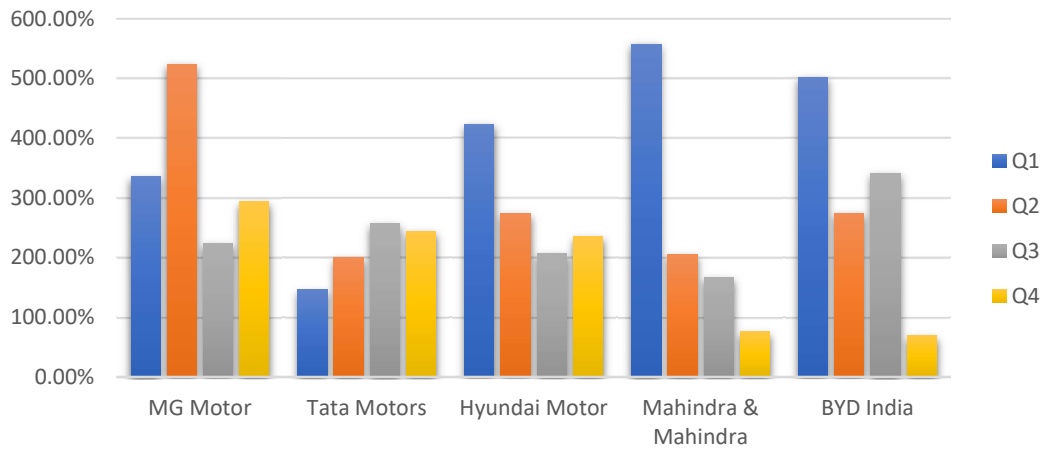


Top 5 EV Makers based on Year over Year sales growth% divided in Fiscal Quarter from FY22 to FY24

Fiscal Year	All
Vehicle Category	4-Wheelers

Fiscal Quarter				
EV Maker	Q1	Q2	Q3	Q4
MG Motor	334.84%	523.15%	223.26%	293.34%
Tata Motors	145.87%	200.08%	256.01%	243.44%
Hyundai Motor	422.67%	273.55%	206.81%	234.84%
Mahindra & Mahindra	557.72%	205.63%	167.17%	75.70%
BYD India	501.23%	274.34%	340.78%	69.34%

Top 5 EV Makers based on Year over Year sales growth% divided in Fiscal Quarter from FY22 to FY24





Problem Statement:
How do the EV sales and penetration rates in Delhi compare to Karnataka for 2024?

Dehli Vs Karnataka EV sales & penetration%(FY24)

Vehicle Category	All
Fiscal Year	2024

State	EV Market penetration%	Total EV sold By the States	Total Vehicle sold By the States
Karnataka	10.18%	161.0K	1.58M
Delhi	7.71%	46.7K	0.61M

Observations:

** Karnataka EV sales & Penetration surpassed by significant numbers in FY24.*

** Below are the factors which affects this trend:*

1) Stable Policy Environment:

- Consistent incentives in Karnataka build confidence; Delhi’s abrupt policy changes deter potential buyers.

2) Higher Absolute Vehicle Sales:

- Despite Delhi’s high EV penetration, Karnataka’s larger overall vehicle registrations drive higher EV volumes.

3) Diverse EV Segment Growth:

- Sales across two-wheelers, cars, and commercial vehicles boost overall numbers in Karnataka.

4) Effective Consumer Engagement:

- Proactive promotions and clear communication in Karnataka increase buyer trust; Delhi faces inconsistency.

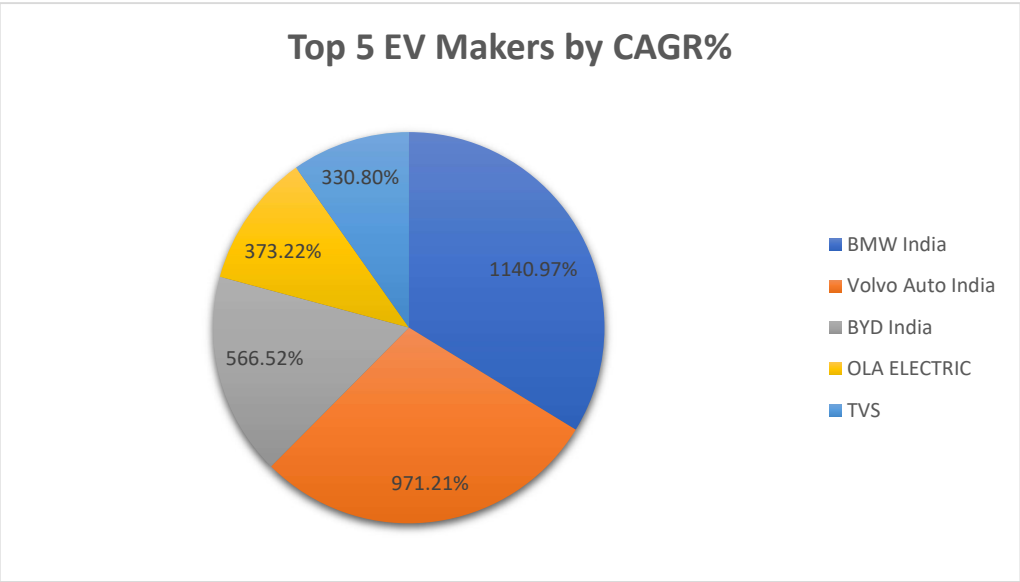


Problem Statement:
List down the compounded annual growth rate (CAGR) in 4-wheeler units for the top 5 makers from 2022 to 2024

Top 5 EV Makers by CAGR%	
Vehicle Category	All

Maker	EV sales CAGR % (Maker)
BMW India	1140.97%
Volvo Auto India	971.21%
BYD India	566.52%
OLA ELECTRIC	373.22%
TVS	330.80%

Fiscal Year
2022
2023
2024



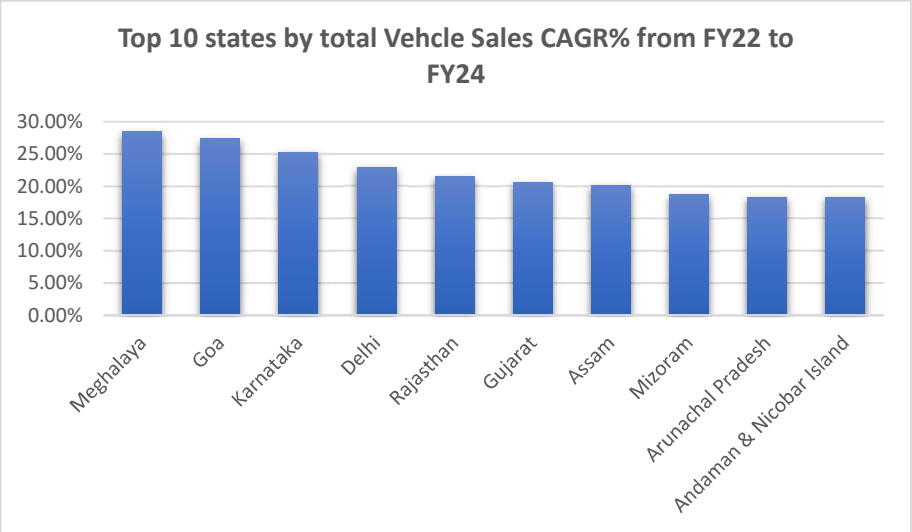


Problem Statement:
List down the top 10 states that had the highest compounded annual growth rate (CAGR) from 2022 to 2024 in total vehicles sold.

Top 10 states by total Vehicle Sales CAGR% from FY22 to FY24

Fiscal Year	All
Vehical Category	All

States	Vehicle Sales CAGR%(state)
Meghalaya	28.47%
Goa	27.41%
Karnataka	25.28%
Delhi	22.88%
Rajasthan	21.50%
Gujarat	20.55%
Assam	20.13%
Mizoram	18.77%
Arunachal Pradesh	18.30%
Andaman & Nicobar Island	18.29%





Problem Statement:
What are the peak and low season months for EV sales based on the data from 2022 to 2024?

Peak 3 months for EV sales

EV Maker	All
state	All
Vehicle Category	All
Fiscal Year	All

Months	Total EV Sold by Makers	Total EV sold by state
Mar	291.6K	291.6K
Nov	205.2K	205.2K
Feb	198.0K	198.0K

Low 3 months for EV sales

EV Maker	All
state	All
Vehicle Category	All
Fiscal Year	All

Months	Total EV Sold by Makers	Total EV sold by state
Apr	134.7K	134.7K
Jul	127.4K	127.4K
Jun	106.7K	106.7K



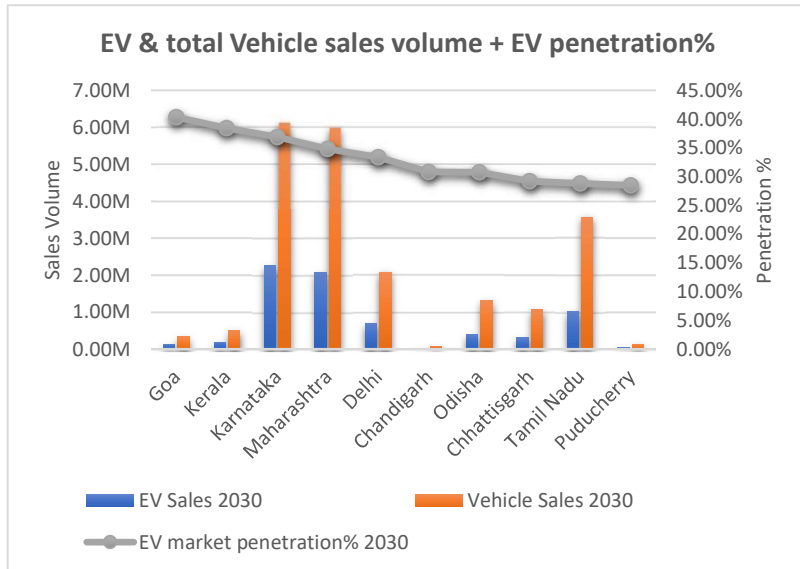
Problem Statement:

What is the projected number of EV sales (including 2-wheelers and 4-wheelers) for the top 10 states by penetration rate in 2030, based on the compounded annual growth rate (CAGR) from previous years?

EV & total Vehicle sales volume + EV penetration%

Vehicle Category All

State	EV Sales 2030	Vehicle Sales 2030	EV market penetration% 2030
Goa	0.14M	0.34M	40.35%
Kerala	0.19M	0.51M	38.44%
Karnataka	2.26M	6.12M	36.90%
Maharashtra	2.08M	5.98M	34.79%
Delhi	0.70M	2.09M	33.38%
Chandigarh	0.03M	0.08M	30.84%
Odisha	0.41M	1.32M	30.75%
Chhattisgarh	0.32M	1.08M	29.26%
Tamil Nadu	1.03M	3.57M	28.82%
Puducherry	0.04M	0.14M	28.51%





Problem Statement:

Estimate the revenue growth rate of 4-wheeler and 2-wheelers EVs in India for 2022 vs 2024 and 2023 vs 2024, assuming an average unit price, 2W = 85K, 4W = 1500K

Revenue Growth% by Makers

vehicle_category 2-Wheelers

EV Makers	Revenue Growth% FY22 vs FY24	Revenue Growth% FY23 vs FY24
BAJAJ	1385.73%	222.27%
TVS	1755.87%	120.17%
OLA ELECTRIC	2139.35%	111.35%
OTHERS	216.44%	48.55%
ATHER	438.41%	39.82%
OKAYA EV	0.00%	5.25%
KINETIC GREEN	0.00%	0.00%
BATTRE ELECTRIC	0.00%	0.00%
BGAUSS	0.00%	0.00%
AMPERE	113.20%	-37.75%
REVOLT	-5.06%	-43.91%
OKINAWA	-56.74%	-78.73%
HERO ELECTRIC	-82.80%	-86.57%
PURE EV	-100.00%	-100.00%
BEING	-100.00%	-100.00%
JITENDRA	-100.00%	-100.00%
Grand Total	269.28%	28.13%

Revenue Growth% by state

vehicle_category 2-Wheelers

State	Revenue Growth% FY22 vs FY24	Revenue Growth% FY23 vs FY24
Mizoram	0.00%	322%
Meghalaya	0.00%	266%
Arunachal Pradesh	0.00%	200%
Ladakh	158.33%	107%
Uttar Pradesh	419.83%	98%
Puducherry	313.14%	81%
Nagaland	400.00%	67%
Madhya Pradesh	443.20%	54%
Assam	340.61%	53%
Goa	576.92%	52%
West Bengal	518.26%	46%
DNH and DD	396.67%	46%
Kerala	467.90%	46%
Karnataka	258.81%	44%
Chhattisgarh	518.10%	35%
Tamil Nadu	144.99%	33%
Maharashtra	336.85%	32%
Bihar	202.44%	32%
Odisha	301.98%	29%
Punjab	125.42%	25%
Tripura	875.00%	24%
Chandigarh	549.30%	23%
Andaman & Nicobar Island	0.00%	18%
Andhra Pradesh	132.85%	7%
Delhi	167.18%	3%
Gujarat	359.95%	2%
Sikkim	0.00%	0%
Rajasthan	217.47%	-1%
Jammu and Kashmir	49.29%	-3%
Jharkhand	177.90%	-4%
Uttarakhand	204.27%	-9%
Himachal Pradesh	109.43%	-15%
Haryana	55.63%	-22%
Manipur	252.00%	-37%
Grand Total	269.28%	28%

Secondary Questions & Answers

Q1) What are the primary reasons for customers choosing 4-wheeler EVs in 2023 and 2024 (cost savings, environmental concerns, government incentives)?

Ans: Below are the factors which have boosted 4 Wheeler EV sales in FY23-FY24:

1) Cost Savings:

- EVs offer lower fuel and maintenance costs, reducing the overall cost of ownership despite a slightly higher upfront price.

2) Environmental Concerns:

- Rising awareness of climate change and air pollution drives buyers to opt for cleaner, emission-free mobility.

3) Government Incentives:

- Subsidies like the FAME scheme, tax benefits, and reduced registration fees make EVs financially attractive.

4) Improved Technology & Infrastructure:

- Enhanced battery performance and expanded charging networks ease range anxiety and boost consumer confidence.

Q2) How do government incentives and subsidies impact the adoption rates of 2-wheelers and 4-wheelers? Which states in India provided most subsidies?

Ans: Impact of government subsidies for EV:

1) Reduction in Upfront Costs:

- Subsidies lower EV purchase prices, making both 2-wheelers and 4-wheelers more financially attractive.

2) Boost in Consumer Confidence:

- Attractive government incentives, including tax breaks and rebates, increase buyer trust and accelerate market adoption.

3) Segment-Specific Impact:

- Direct incentives help overcome cost barriers in two-wheelers, while tax concessions and rebates drive higher passenger vehicle sales.

Below are the state which provides most subsidies:

1) Delhi:

- Offers direct cash incentives of up to ₹1.5 lakh for electric cars, ₹30,000 for two-wheelers, and about ₹5,500 for e-cycles.

2) Kerala:

- Provides indirect subsidies via free vehicle registration, road tax exemption, toll waiver, and free parking; estimated cumulative savings may range around ₹40,000–₹60,000 per vehicle.

3) Tamil Nadu:

- Implements incentives including road tax and registration fee waivers with estimated benefits of up to ₹1 lakh for certain EV segments, though exact figures vary by model and category.

4) Karnataka & Maharashtra:

- Focus more on infrastructure and ecosystem support rather than high direct cash subsidies; direct purchase benefits are comparatively limited.

Q3) How does the availability of charging stations infrastructure correlate with the EV sales and penetration rates in the top 5 states?

Ans: Below are the factors that affects EV sales & penetration rates in top 5 states with EV charging infrastructure:

1) Robust Charging Networks Boost Confidence:

- States like Karnataka and Maharashtra with dense charging stations see higher EV adoption, reducing range anxiety. A reliable charging network encourages consumers to invest in EVs, aligning with higher sales figures.

2) Urban Hubs Accelerate EV Penetration:

- Metropolitan areas with concentrated charging infrastructure (e.g., Mumbai, Chennai) drive faster EV uptake. Increased accessibility to chargers in cities directly contributes to improved EV penetration rates.

3) Synergistic Policy and Infrastructure:

- State policies offering incentives for charger installations also boost EV sales and penetration. Coordinated efforts in funding and infrastructure development create a supportive EV ecosystem.

4) Segment-Specific Trends Influence Demand:

- In regions like Uttar Pradesh, even modest charger networks support strong sales in simpler EV segments. A focus on low-maintenance vehicles like three-wheelers allows sales to thrive despite fewer chargers.

5) Integrated Growth Fuels Market Expansion:

- Alignment between charging infrastructure and EV market growth reflects strategic state-level planning. Top states leverage both infrastructure investments and targeted policies to significantly increase EV adoption.

Q4) Who should be the brand ambassador if AtliQ Motors launches their EV/Hybrid vehicles in India and why?

Ans: The brand Ambassador for AtliQ Motors India for EV/Hybrid vehicles : Narain Karthikeyan (India's First F1 Racer).

Reasons to Choose Narain Karthikeyan as Brand Ambassador for EV/Hybrid Vehicles:

1) Gen Z Appeal:

- Thrill & Speed: Embodies the adrenaline of Formula 1, aligning with Gen Z's passion for high-performance, futuristic vehicles.
- Trailblazer Persona: Pioneered India's F1 journey (2005), resonating with youth who admire boundary-breaking innovators.

2) Patriotic Connection:

- National Pride: As India's first F1 driver, he symbolizes a "Made in India" legacy, evoking emotional loyalty among audiences.
- Underdog Story: Overcame challenges in less competitive teams (e.g., HRT), mirroring India's rise in global tech and sustainability sectors.

3) Legacy + Modern Relevance:

- Authentic Sustainability Advocate: Post-F1, promotes eco-conscious mobility, bridging EV goals with Gen Z's climate activism.
- Cross-Generational Influence: Appeals to older audiences (nostalgia) while mentoring young racers like Kush Maini (future-forward appeal).

4) Strategic Impact:

Secondary Questions & Answers

Q5) Which state of India is ideal to start the manufacturing unit? (Based on subsidies provided, ease of doing business, stability in governance etc.)

Ans: Based on subsidies, ease of doing business, governance stability, and existing infrastructure, here are the most strategic states:

1. Tamil Nadu

Key Advantages:

- **Auto Manufacturing Hub:** Hosts major EV players like Hyundai (investing \$2.45B in EV initiatives) and Ford’s repurposed Sanand facility for Tata Motors.
- **Policy Support:** Offers capital subsidies, tax holidays, and streamlined approvals under its EV Policy 2023.
- **Infrastructure:** Chennai Trade Centre hosts **India EV Show 2025**, reflecting its prominence in EV innovation and networking.
- **Export Potential:** Hyundai’s Tamil Nadu plant serves as a global export base for EVs.

2. Maharashtra

Key Advantages:

- **Established Auto Ecosystem:** Home to Tata Motors, Bajaj Auto, and Mahindra’s upcoming EV plant in Pune.
- **Incentives:** Subsidies under FAME II, PLI schemes, and state-level grants for R&D and charging infrastructure.
- **Strategic Location:** Proximity to ports (Mumbai) aids export logistics.

3. Gujarat

Key Advantages:

- **Ease of Business:** Ranked #1 in industrial policy implementation; offers land subsidies and tax exemptions.
- **Major Facilities:** MG Motor’s Halol plant and Tata’s Sanand facility focus on EV production.
- **Battery Manufacturing:** Emerging as a hub for battery tech with investments in lithium-ion production.

4. Karnataka

Key Advantages:

- **Charging Infrastructure:** Highest number of public EV chargers in India (6,000+ stations).
- **Tech Ecosystem:** Bengaluru’s EV registrations grew 150% annually, driven by startups like Ather Energy.
- **Policy:** Road tax exemptions and subsidies for EV components manufacturing.

5. Telangana

Emerging Hub:

- **BYD’s Entry:** Chinese EV giant BYD is setting up a \$1B plant near Hyderabad, signaling confidence in the state’s policies.
- **Incentives:** Land subsidies, fast-track approvals, and partnerships with firms like Megha Engineering.
- **Future-Ready:** Focus on battery swapping and fast-charging infrastructure to address range anxiety.

Key Considerations 158

- **Subsidies:** Delhi and Kerala lead in consumer incentives, but Tamil Nadu and Gujarat offer better manufacturing subsidies.
- **Infrastructure Gaps:** Tier-2/3 cities in Uttar Pradesh and Assam lack charging networks, despite high e-rickshaw adoption.
- **Localization:** States like Maharashtra and Tamil Nadu prioritize domestic battery production to reduce import dependency.

• **Recommendation:** **Tamil Nadu** and **Gujarat** are ideal for large-scale manufacturing due to their established ecosystems, while **Telangana** and **Karnataka** suit innovation-driven ventures. For hybrid strategies targeting both urban and rural markets, **Maharashtra** offers balanced advantages.

Q6) Your top 3 recommendations for AtliQ Motors.

Ans: Below will be 3 key suggestions:

1. Prioritize Affordable Localization

Why? Indian buyers are price-sensitive; cost-competitive EVs gain faster adoption.

How?

- * Partner with domestic battery manufacturers (e.g., Exide, Amara Raja) to reduce import dependency.
- * Design compact EVs (e.g., 2-wheelers, 3-wheelers) tailored for urban commutes and last-mile logistics.
- * **Example:** Ola Electric’s S1 Air scooter (₹1.1 lakh) targets mass-market affordability.

2. Leverage Government Incentives & Partnerships

Why? Subsidies and collaborations reduce upfront costs and build credibility.

How?

- * Tap into **FAME-II, PLI schemes**, and state-level EV policies (e.g., Gujarat’s 100% stamp duty waiver).
- * Partner with charge-point operators like Tata Power or Statiq to bundle charging solutions with your product.
- * **Example:** Ather Energy’s grid of fast chargers was partly funded through Karnataka’s EV policy.

3. Solve Infrastructure Gaps with Innovation

Why? Range anxiety and sparse charging networks hinder EV adoption.

How?

- * Adopt **battery-swapping models** (e.g., Sun Mobility) for commercial fleets (e.g., e-rickshaws, delivery vans).
- * Integrate solar-powered micro-charging hubs in tier-2/3 cities.
- * **Example:** BluSmart’s app-based charging + ride-hailing combo addresses urban infrastructure gaps.

****Bonus Tip:** Highlight *sustainability storytelling* (e.g., carbon-neutral manufacturing, recycling programs) to align with Gen Z’s eco-conscious values and India’s net-zero goals.