



# India EV Market Analysis

*Strategic insights for a successful EV launch in India*



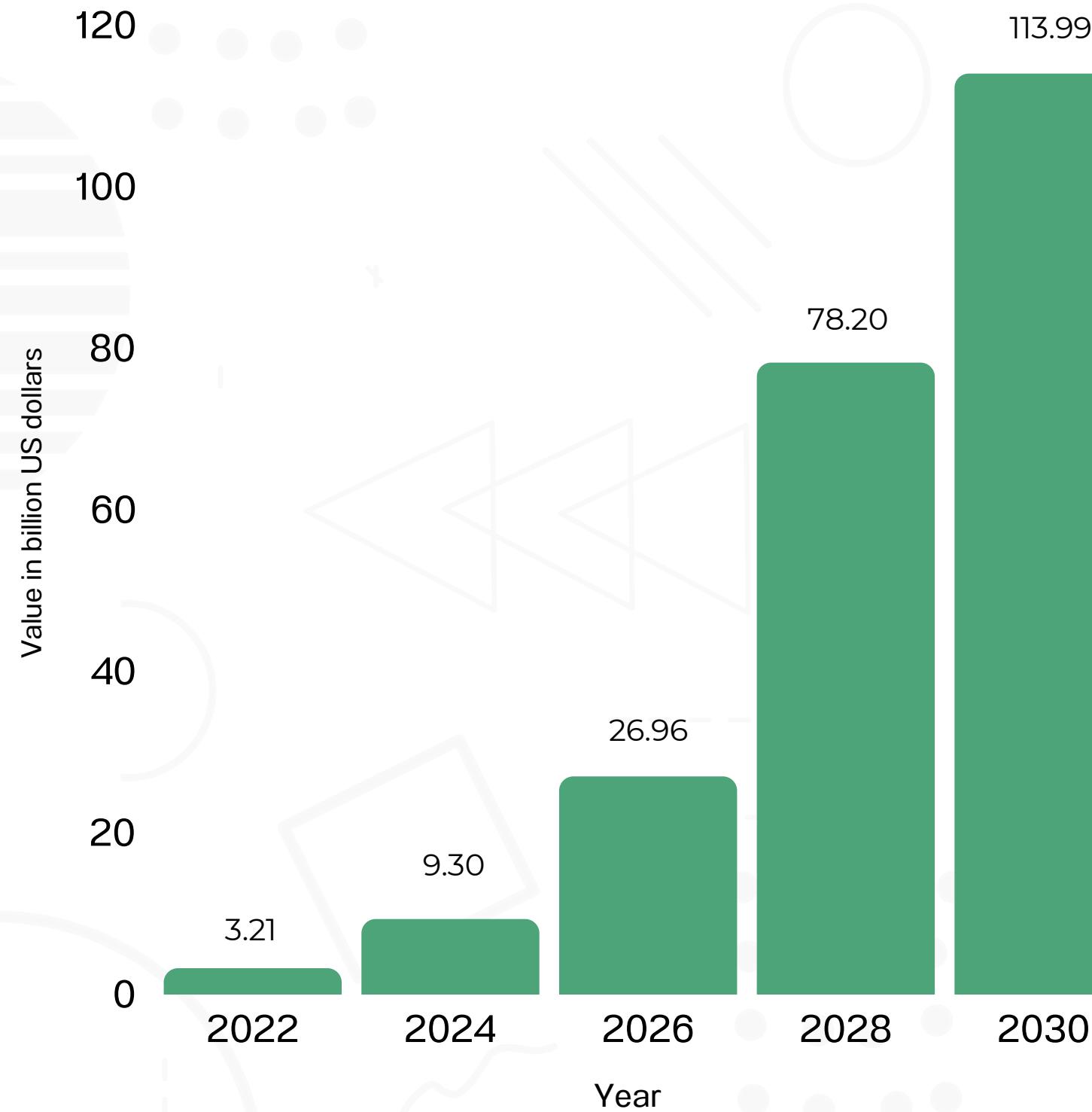
- ❖ Includes data of India EV sales over past 24 years and Demographics
- ❖ Detailed analysis on 3W Segment, Consumer Psychographics & more

1	Market Analysis
2	Consumer Demographics & Analysis
3	Factors Influencing Purchasing Decision
4	Competitive Landscape
5	Government Schemes & Subsidies
6	SWOT Analysis
7	Primary & Secondary Analysis

# Agenda

# Market Analysis

India EV Market Size (in US billions)

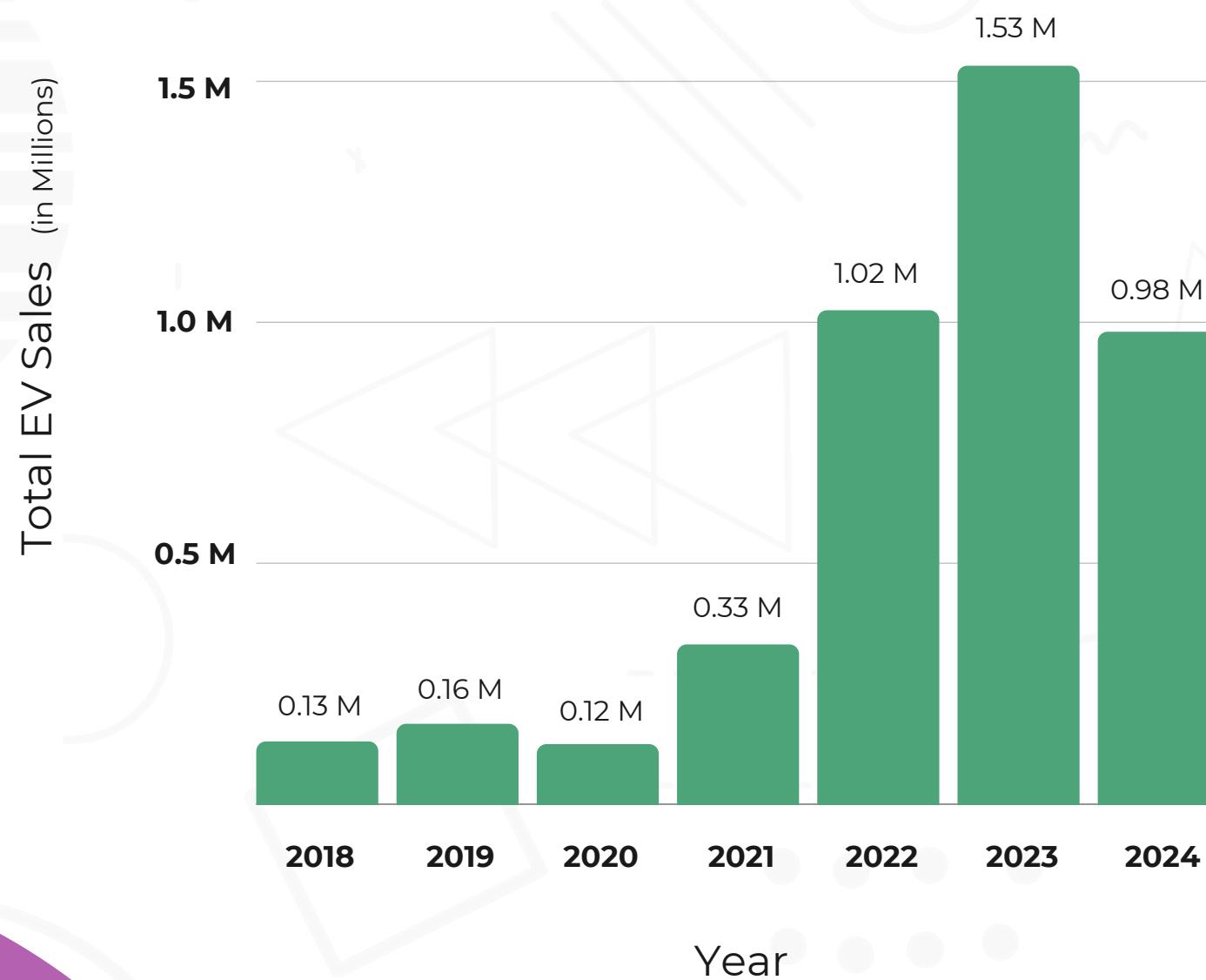


In the early stage of adoption, the Indian EV market was valued at \$3.21 billion in 2022.

Expected to grow to \$113.99 billion by 2030, with a **CAGR of 34.02%** with significant growth potential

Growth driven by government support, rising demand, and technological advancements.

# EV Sales Over Year



**April, 2019** Launch of FAME II with more comprehensive approach to promote EV Sales in India



**May, 2020** Huge decline in EV Sales due to the COVID-19 Pandemic and nation-wide lockdown



**June, 2021** Uttar Pradesh leads in 3W EV sales in India with highest market share of 20%



**January, 2022** Ola Electric started delivering 2W and held a market share of 17.6% by selling 1,09,398 EV in its intro-year

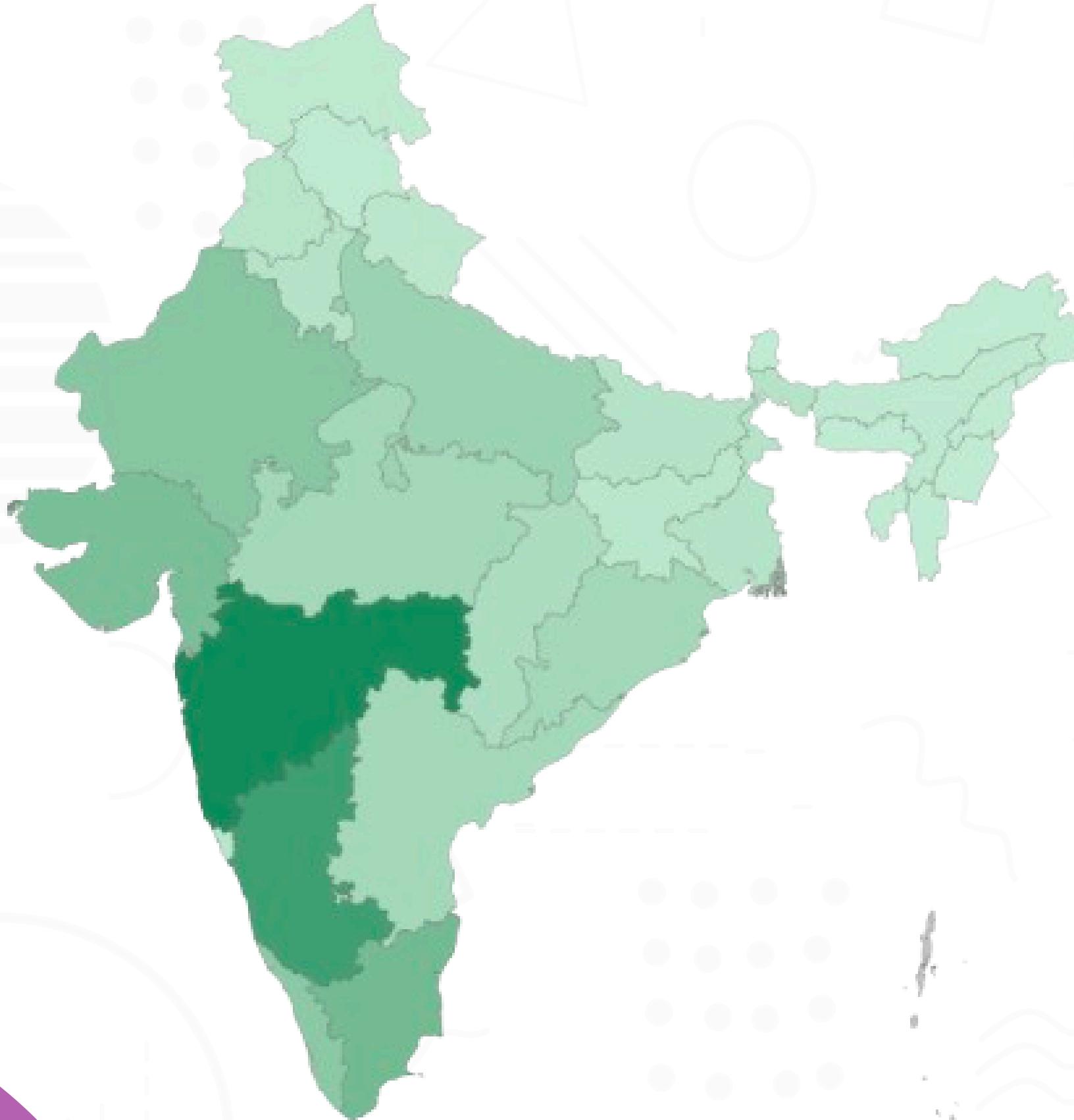


**July, 2023** A huge spike in 2W Sales started with strong competition between OLA, AETHER, OKINAWA, HERO



**August, 2024** EV Market tends to grow at a CAGR of 68.18% with announcements of more makers entry in EV Industry

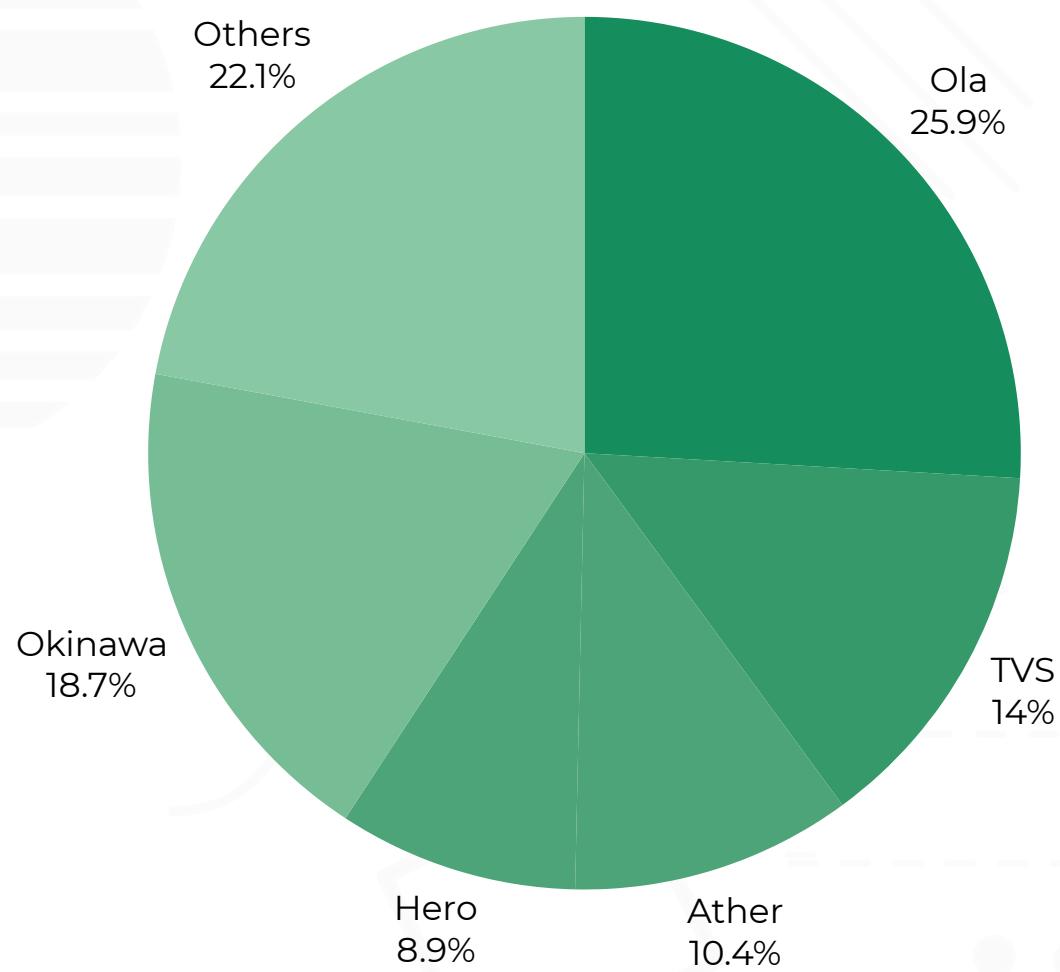
# Key Markets



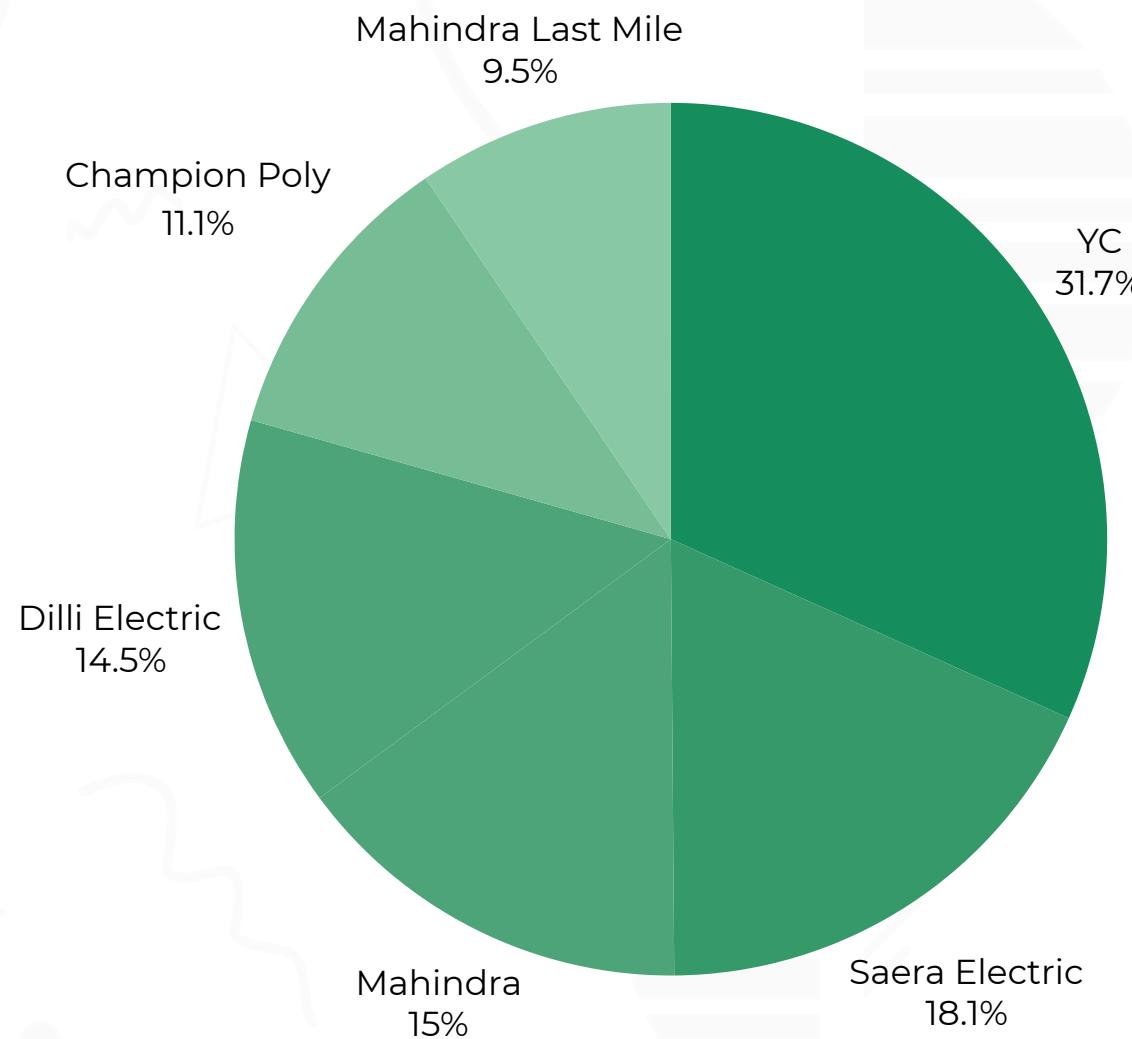
State	Total EV Sales (2023)	PR %
Maharastra	1,94,343	6.49
Karnataka	1,52,680	7.84
Rajasthan	93,767 ▲	4.55
Tamil Nadu	90,288 ▼	4.30
Gujarat	88,615	4.40
Kerala	75,800 ▲	6.64
Delhi	73,676 ▼	6.76

# Key Players

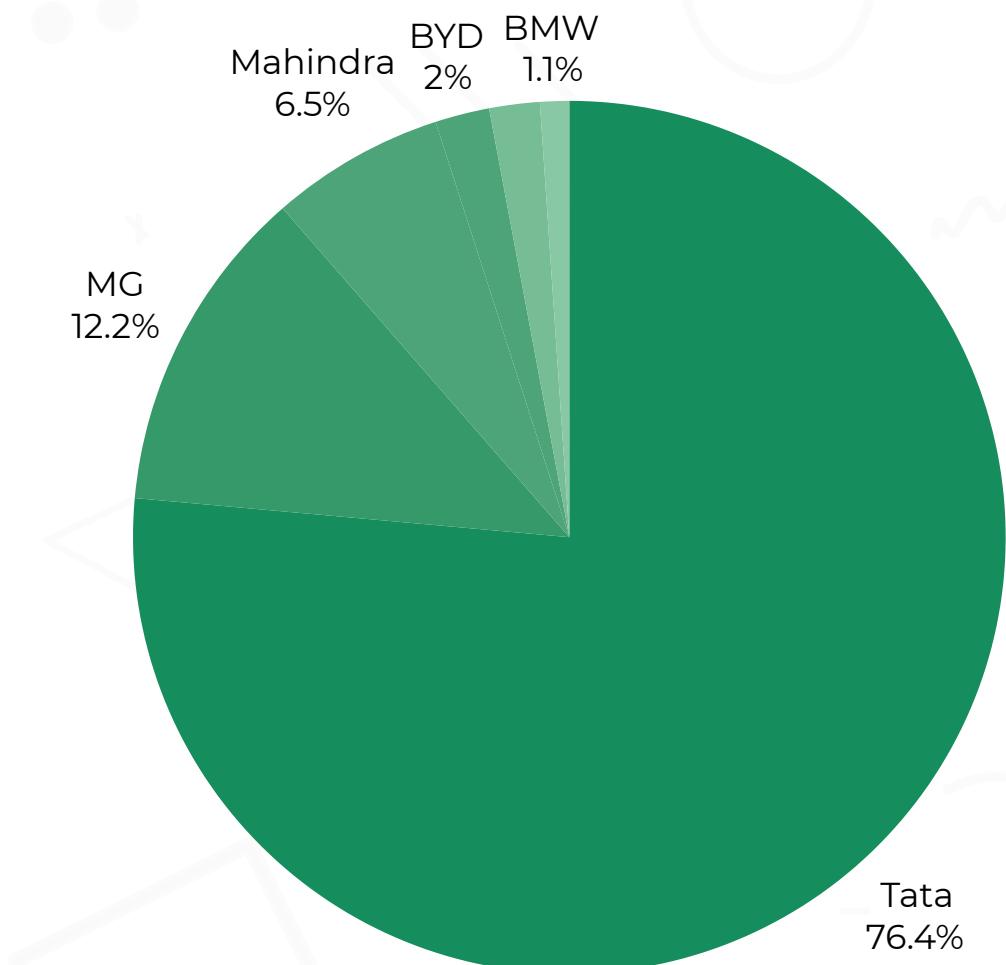
## 2-Wheeler Segment



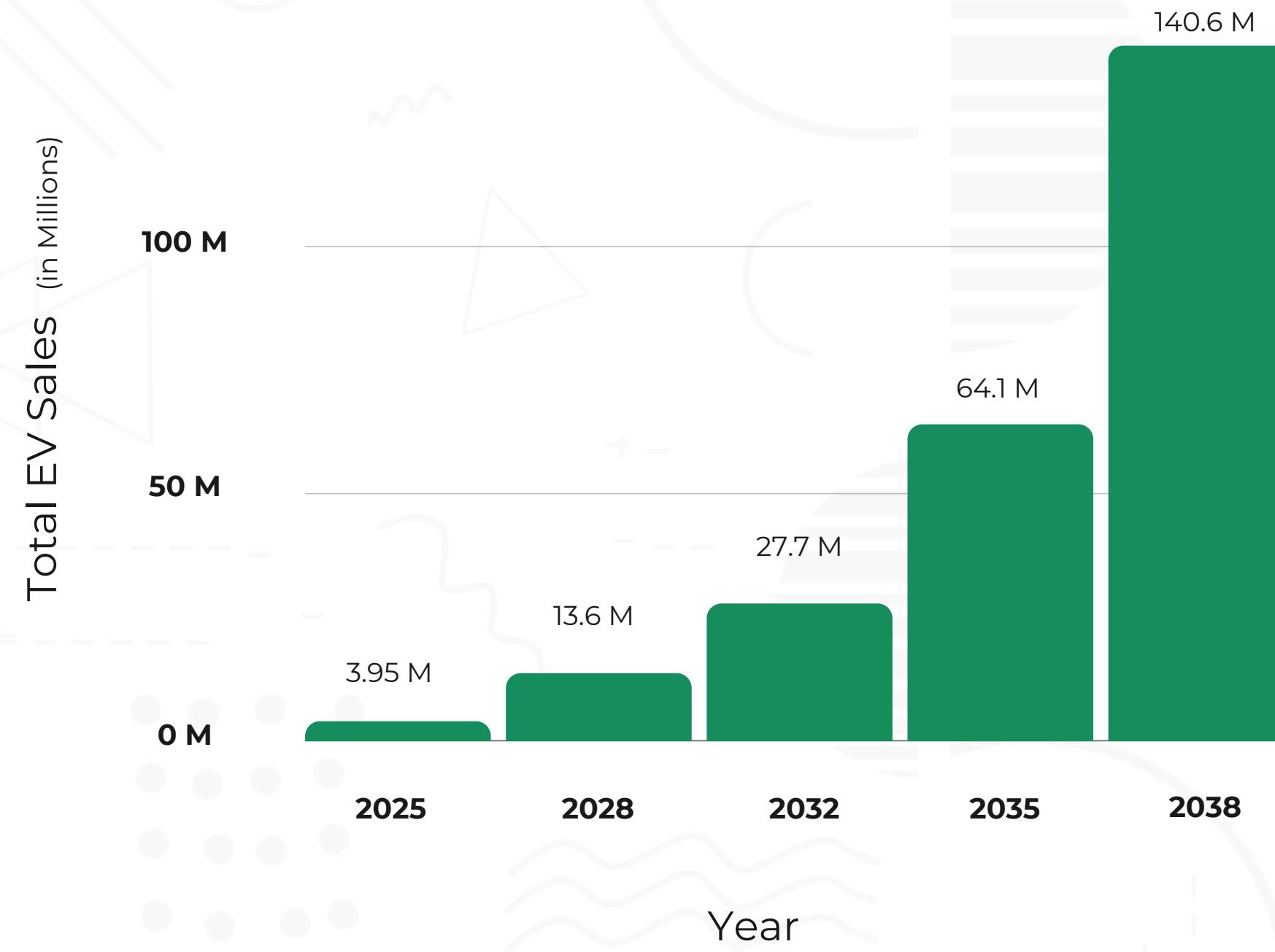
## 3-Wheeler Segment



## 4-Wheeler Segment



# EV Sales Forecast



# Demographics & Psychographics



**Urban Residents** are the most likely to adopt electric vehicles due to better infrastructure and shorter travel distances



**High-Income** Individuals show a stronger preference for electric vehicles, driven by affordability and environmental awareness



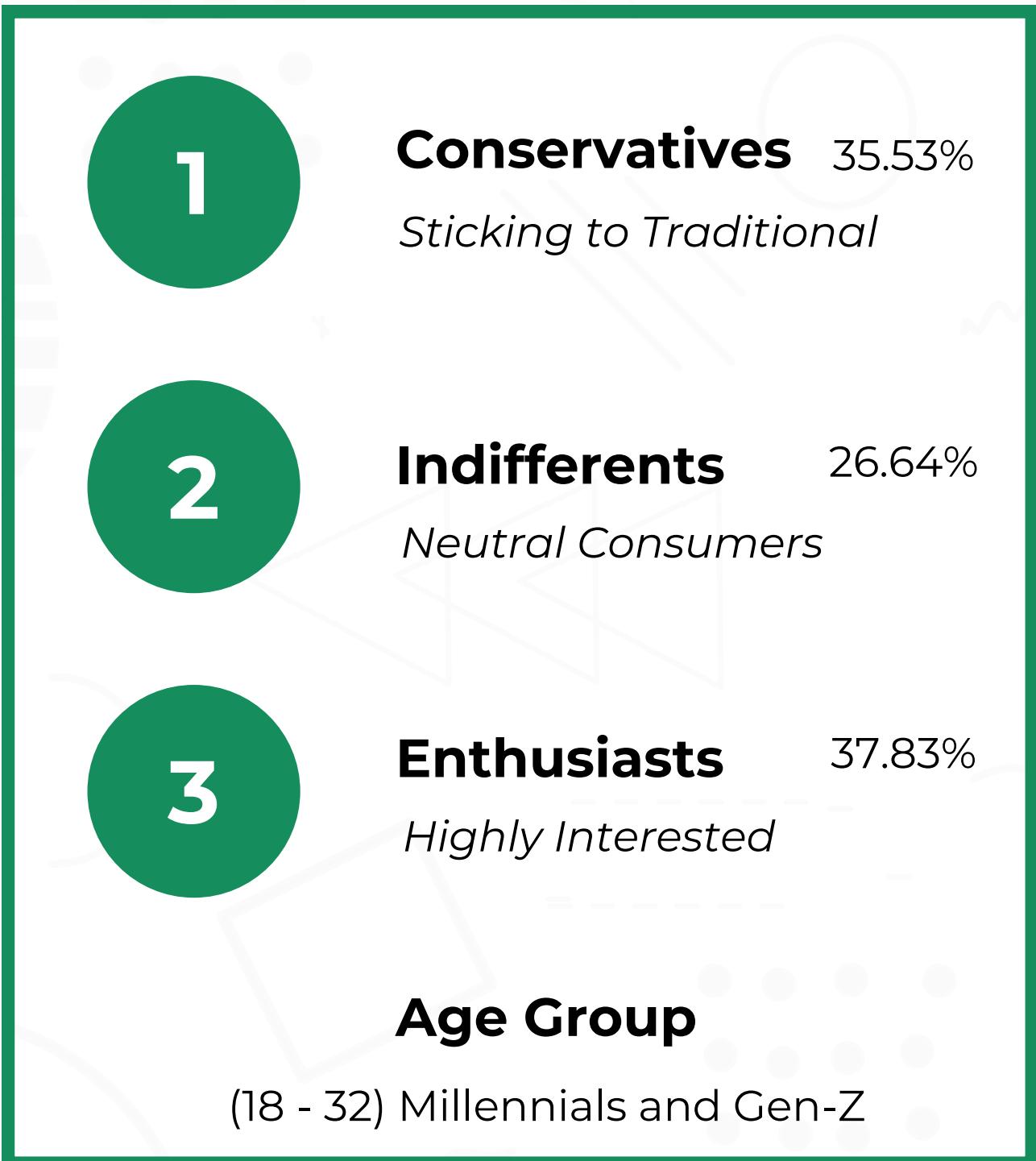
**Environmentally Conscious** Consumers are more inclined to choose electric vehicles, valuing sustainability over conventional options



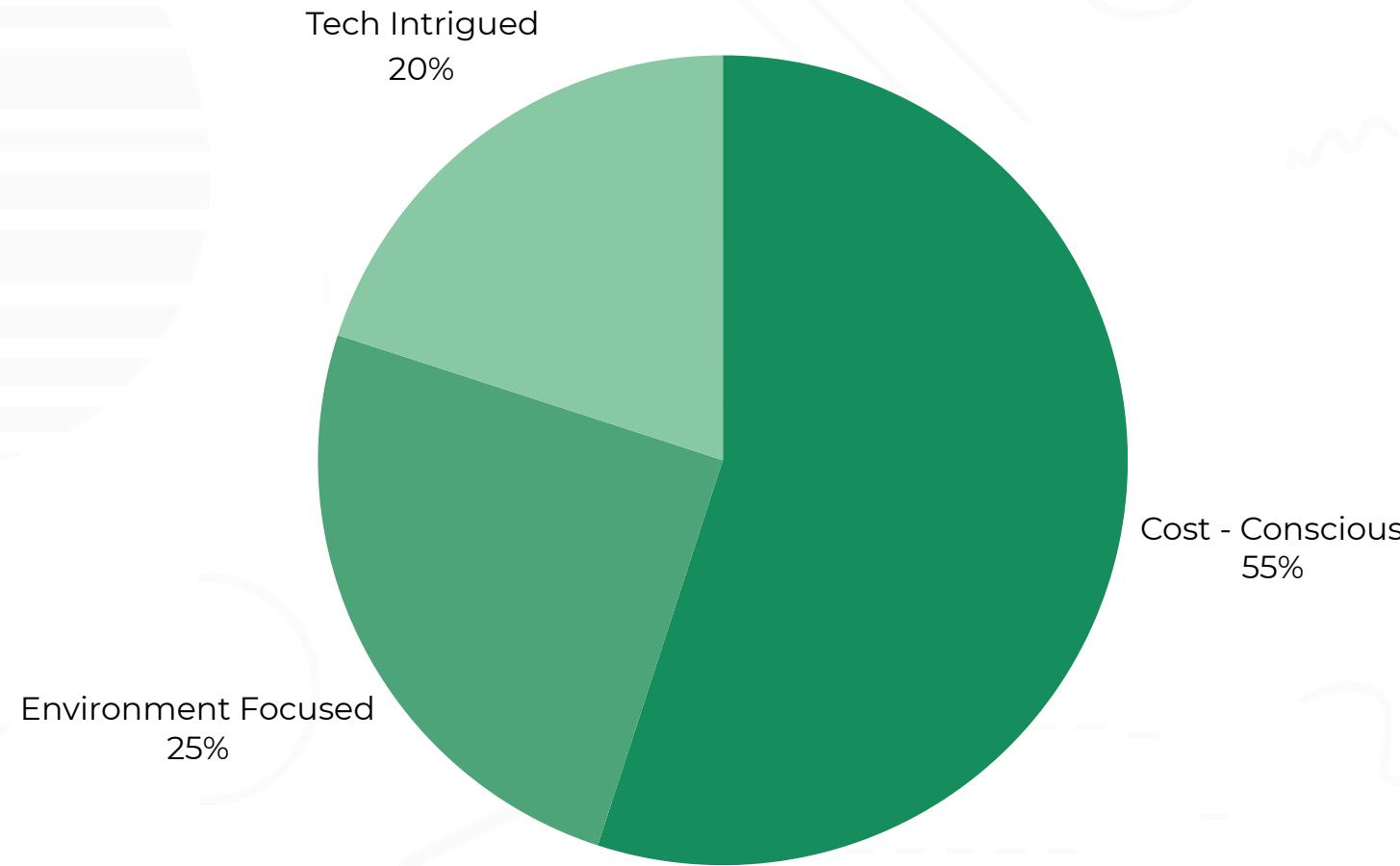
**Tech Enthusiasts** are early adopters of electric vehicles, attracted by the innovation and advanced features these vehicles offer.



**Frequent Commuters** see electric vehicles as a cost-effective solution for their daily travel needs, especially in regions with high fuel costs.



# Consumer Segments



**Tech Enthusiasts** are eager for advanced features and innovations, often adopting new technology early



**Eco-Conscious** people prioritize sustainability and favor products from brands with strong environmental commitments



**Budget-Conscious** seek the best value and are sensitive to pricing, comparing options before purchasing



**Long-Term Savers** consider the product's long-term cost benefits, including energy efficiency and maintenance



**Informed Buyers** make decisions based on detailed reviews and assessments of product value and environmental impact

# (+) Factors Influencing Purchasing Decision

for Indian EV Customers



**Upfront Cost** Entry-level EVs in India cost between ₹10-15 lakhs



**Long-Term Savings** EVs offer significant savings on fuel and maintenance over time



**FAME II Subsidy** Government provides up to ₹1.5 lakhs subsidy, reducing initial costs



**Total Cost of Ownership** Lower long-term expenses make EVs more financially attractive



**Financial Barrier** Subsidies and savings help mitigate the high upfront price of EVs



# Total Cost of Ownership - Segment Wise Comparison

<b>Vehicle Category</b>	<b>ICE Model</b>	<b>ICE TCO</b>	<b>EV Model</b>	<b>Subsidy</b>	<b>No Subsidy</b>	<b>Difference</b>
2 Wheeler Passenger	Honda Activa OBD 2	₹2,32,359	Ather 450X	₹1,87,324	₹2,35,284	₹45,035
3 Wheeler Passenger	Bajaj Auto RE	₹8,20,029	Mahindra Treo	₹4,59,361	₹5,77,3841	₹3,60,668
3 Wheeler Cargo	Bajaj Maxima	₹10,66,131	Euler Hi-Load	₹6,33,154	₹8,06,367	₹4,32,977
4 Wheeler Passenger	Tata Tiago XZ (CNG)	₹14,08,116	Tata Tiago EV Long Range	₹8,79,605	₹11,37,776	₹5,28,511

TCO Formula = Initial Cost + Fuel Cost + Maintenance Cost + Insurance Cost + Depreciation | Credits: Think School

# (-) Factors Influencing Purchasing Decision

for Indian EV Customers



## Range & Charging Infrastructure Concerns

Entry-level EVs provide range around 200-300 km per charge which stands as a big concern about insufficient driving distance



## Charging Infrastructure

As of Aug 2024, India has around 1500 public charging stations but their distribution is uneven as most are available only in urban areas

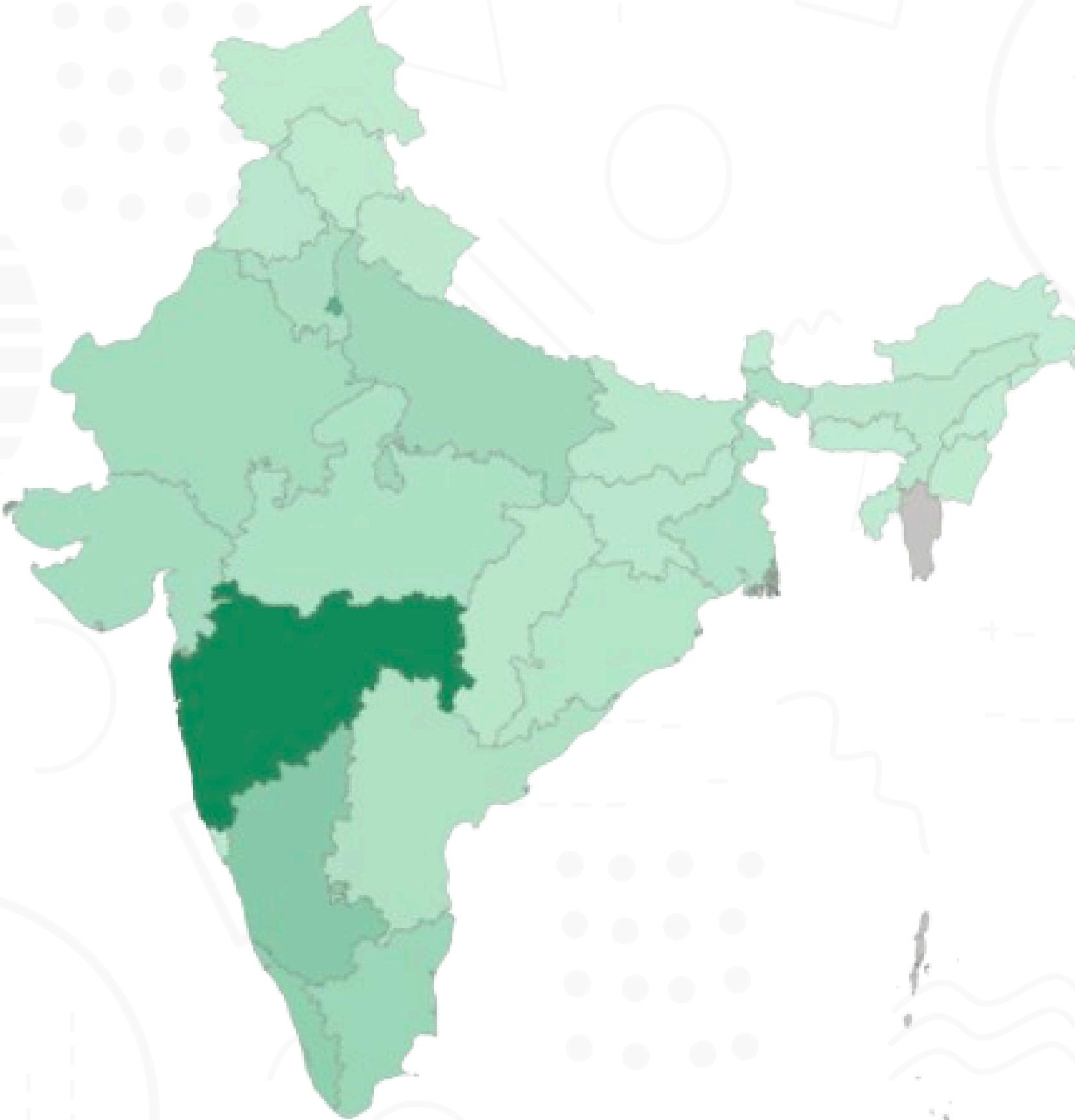


## High Upfront Cost & Resale Concerns

EVs have higher upfront cost even with long-term savings on fuel and subsidies, it still stands as a concern for majority of customers and the depreciation of EVs are much higher making it a bigger concern



# EV Charging Infrastructure



State	Operational PCs
Maharastra	3079
Delhi	1886
Karnataka	1051
Kerala	852
Tamil Nadu	643 ▲
Uttar Pradesh	582
Rajasthan	500 ▼
Telangana	481
Gujarat	476
Haryana	377

# Competitive Landscape

## Direct Competitors



### Established Players

- 2W Segment - Ola Electric, TVS, Ather, Okinawa
- 3W Segment - Saera Electric, YC, Mahindra, Dilli Electric
- 4W Segment - Tata Motors, MG Motors, Mahindra, BMW

### New Entrants

- 2W Segment - Simple Energy, Ultraviolette Automotive
- 3W Segment - Omega Seiki Mobility, Euler Motors
- 4W Segment - BYD, Pravig Dynamics

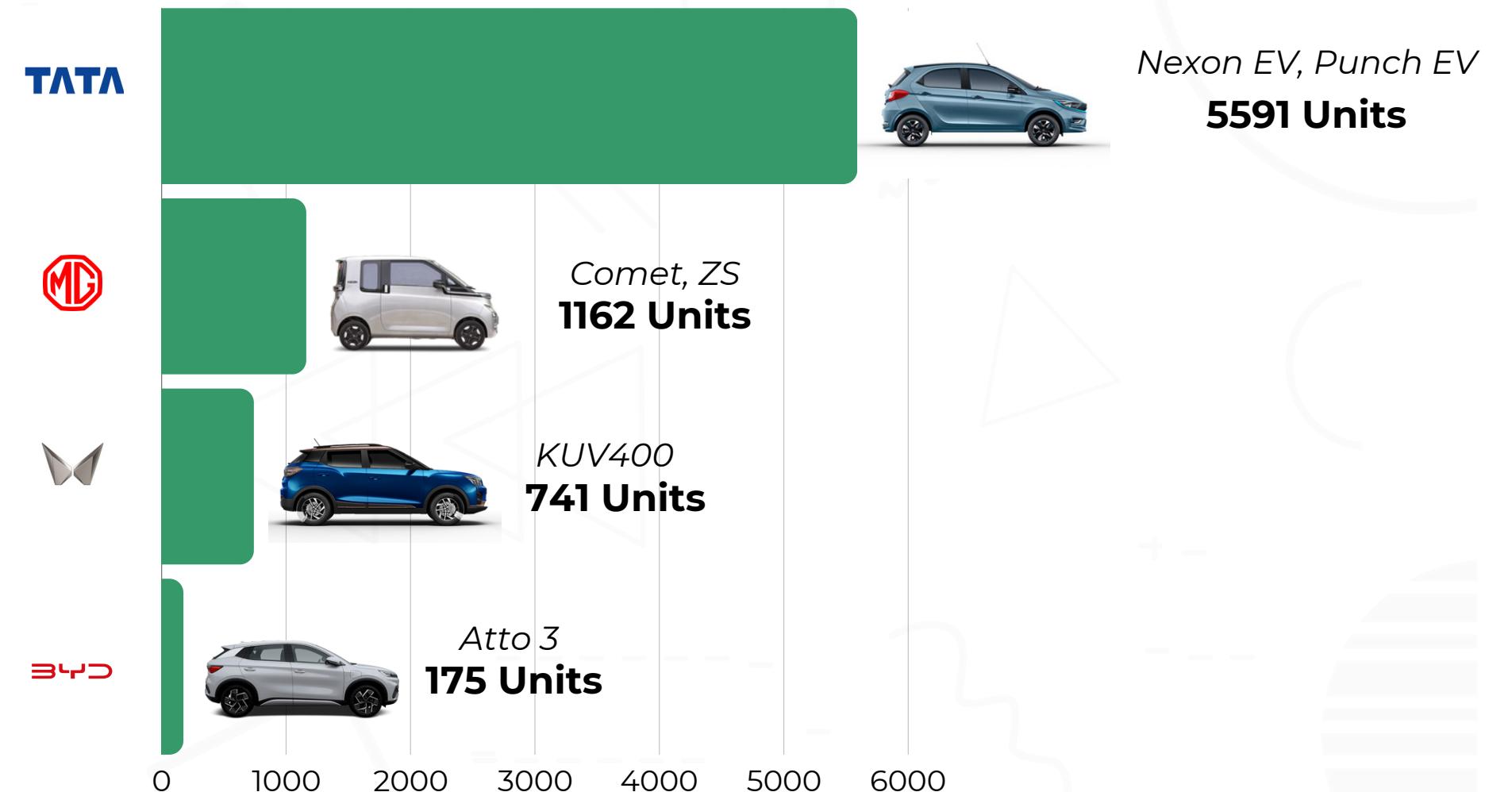
### Upcoming Entrants

- 2W Segment - Boom Motors
- 3W Segment - Greaves
- 4W Segment - Fisker Inc



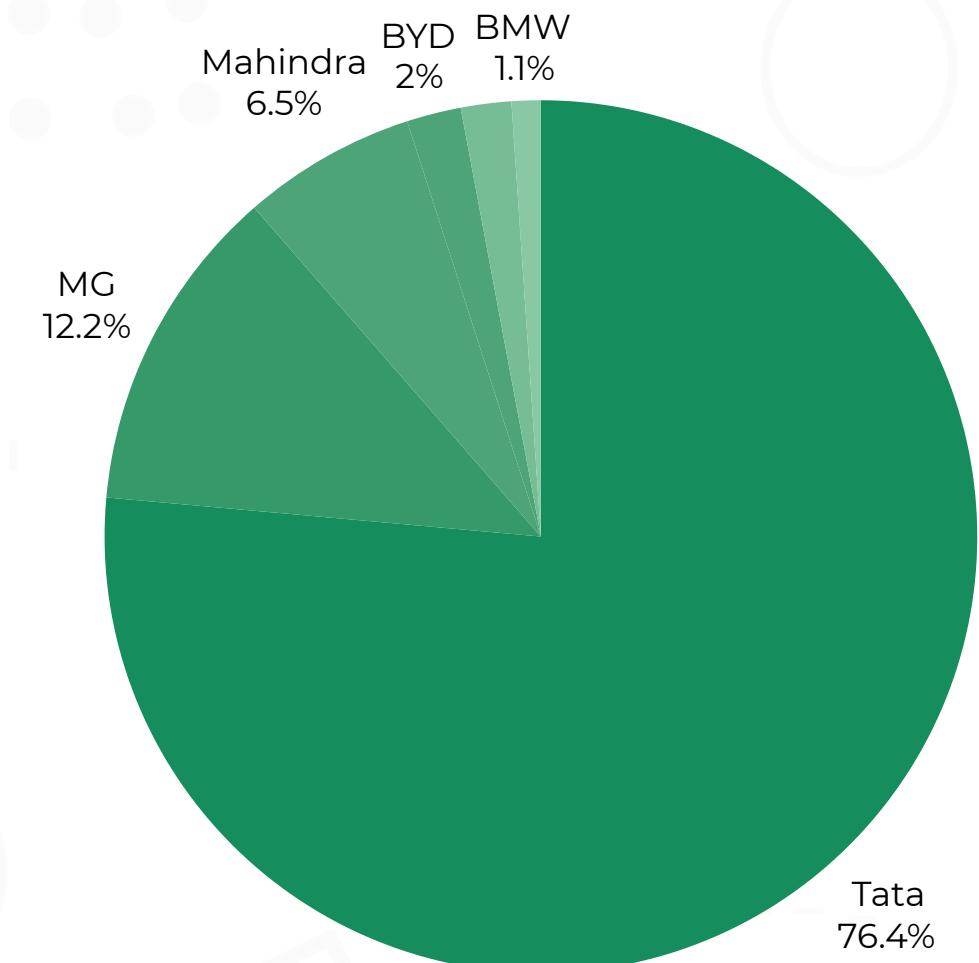
# Competitive Landscape - 4W

## Top Selling EV Cars (By Brands)\*



\*Jan 2024 EV Sales

## Competitors Market Share



# USP of Top Selling Cars

 **Tata Nexon EV:** Built on Tata's strong brand and widespread network.

 **MG Comet EV:** Offered affordability and innovative city-friendly features.

 **Mahindra KUV400 EV:** Provided a rugged, spacious design.

 **BYD Atto 3:** Featured advanced battery tech and a premium feel.

Effective Marketing: Each brand used strong marketing to highlight their unique advantages.

# Brand Model Comparison

Brand	EV Model	ARAI Range	Price	Displacement	Battery	NCAP Result
Tata	Nexon EV	395 KM	₹14.74 - ₹19.94 lakhs	129 hp, 149 hp	30 kWh, 40.5 kWh	★★★★★
MG	ZS EV	461 KM	₹23.08 - ₹28.00 lakhs	174 hp	50.3 kWh	★★★★★
Mahindra	KUV 400	456 KM	₹15.99 - ₹18.99 lakhs	150 hp	34.5 kWh, 39.4 kWh	---
BYD	Atto 3	521 KM	₹33.94 - ₹34.99 lakhs	201 hp	60.48 kWh	★★★★★

ARAI Range - Claimed range under lab circumstances

# LIST OF GOVT SCHEMES

Focused For Manufacturers

1

2

3

4

5

6

FAME India - II

PLI SCHEME

BS POLICY

DUTY REDUCTION

E-MOBILITY ZONE

NEMMP

# Top Beneficiary Schemes

for Manufacturers



## PLI Scheme

Incentive Amount: ₹26,058 crore allocated over five years for enhancing domestic manufacturing of advanced automotive technologies.



## Duty Reduction on EV

The budget includes a proposal to lower customs duties on Nickel ore and concentrates from 5% to 0%, Nickel Oxide from 10% to 0%, and Ferro Nickel from 15% to 2.5 percent.



## NEMMP

Sales Target: Aims for 6-7 million EVs on the road by 2020, with additional focus on scaling up EV infrastructure and technology development.



# Recommended Scheme to Note On

## PLI Scheme

The Production-Linked Incentive (PLI) scheme in India aims to boost domestic manufacturing by providing financial incentives to companies based on their incremental sales and investments.



### Market Expansion

The scheme offers significant financial incentives tied to incremental sales and **production of EV and Advanced Automotive Components (ACC)**



### Financial Incentives

Eligibility for incentives requires a minimum investment threshold, encouraging **significant R&D in advanced EV technologies.**



### Support for Advanced Technologies

**Incentives can result in up to 18% of incremental sales value,** enhancing competitiveness and supporting rapid scaling in the Indian market.

# Important Regulatory Info



## GST Reduction

Electric vehicles benefit from a reduced **Goods and Services Tax (GST) rate of 5%**, compared to 28% for internal combustion engine vehicles, making EVs more affordable



## Safety and Emission Norms

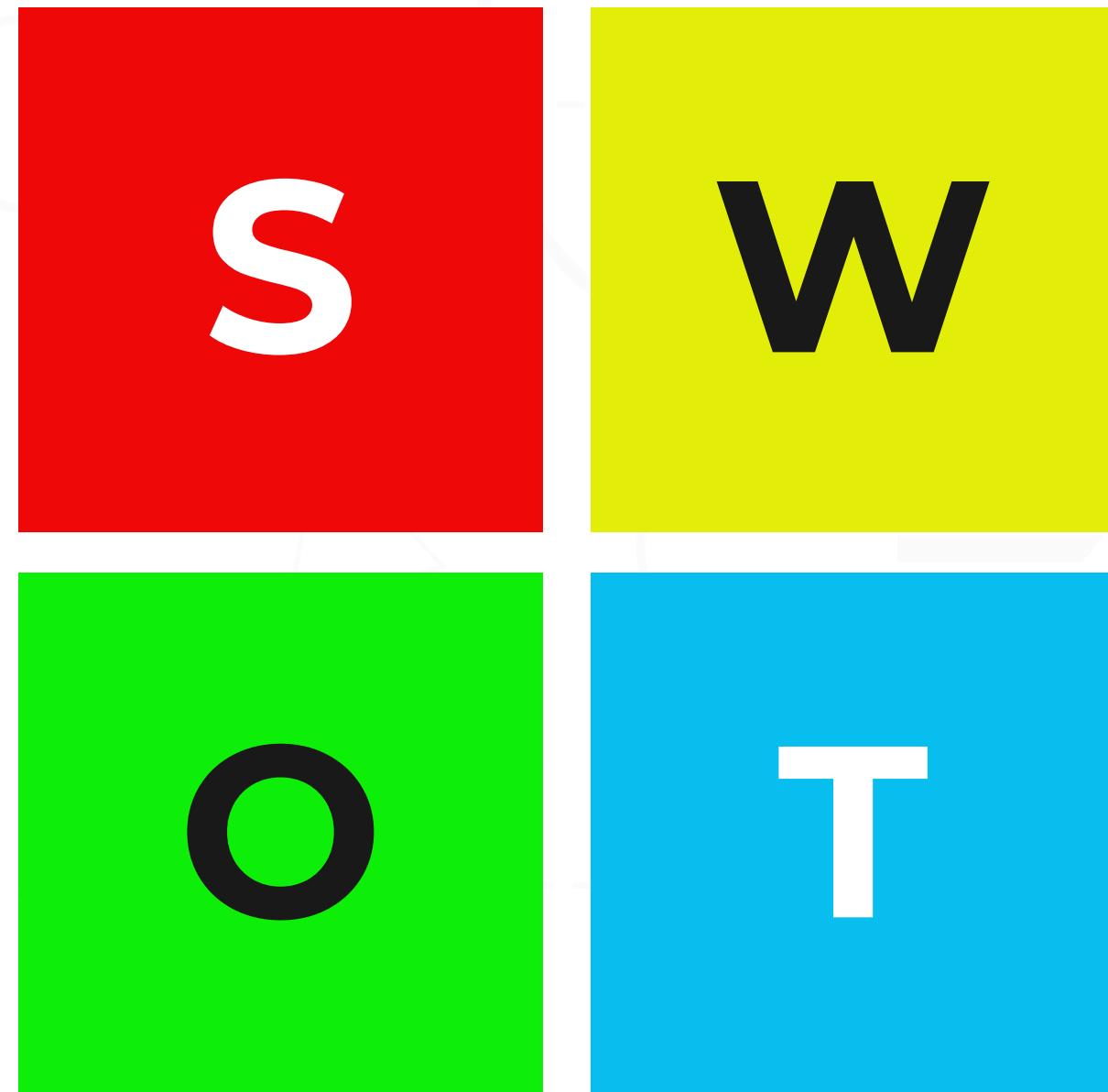
The Indian government is **tightening safety regulations for EVs** and implementing stricter emission norms, which impacts vehicle design and technology requirements



## Charging Infrastructure

The regulatory focus is also on **expanding the EV charging network**, with policies encouraging private and public sector investment in charging infrastructure

# SWOT Analysis



**S**

## Strengths

**W****O****T**

### Government Support

Strong government incentives and policies favor EV adoption



### Growing Demand

Increasing consumer interest in sustainable and eco-friendly transportation



### Technological Advancements

Rapid improvements in battery technology and charging infrastructure

# W

## Weakness

S	
O	T



### High Initial Costs

The upfront cost of EVs remains a barrier despite subsidies



### Limited Range

Range anxiety and the limited availability of charging stations are ongoing concerns

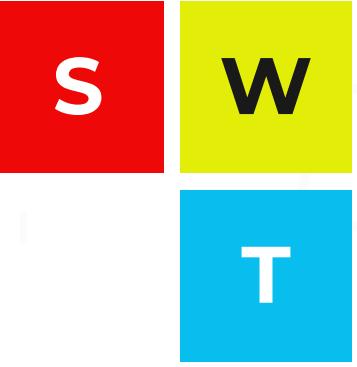


### Market Penetration

EV market penetration is still in its early stages, especially in rural areas

**O**

# Opportunities

**S** **W**  
**T**

## Expanding Market

The EV market in India is expected to grow rapidly in the coming years



## Innovation

Opportunities for innovation in battery technology, charging infrastructure, and vehicle design

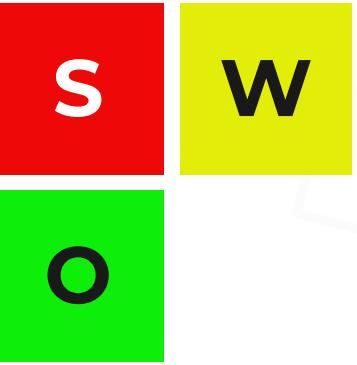


## Partnerships

Potential for strategic partnerships with tech firms and renewable energy companies

**T**

## Threats



### Competitions

Increasing competition from established automakers and new entrants in the EV market



### Regulatory Changes

Potential changes in government policies or incentives that could impact the EV market



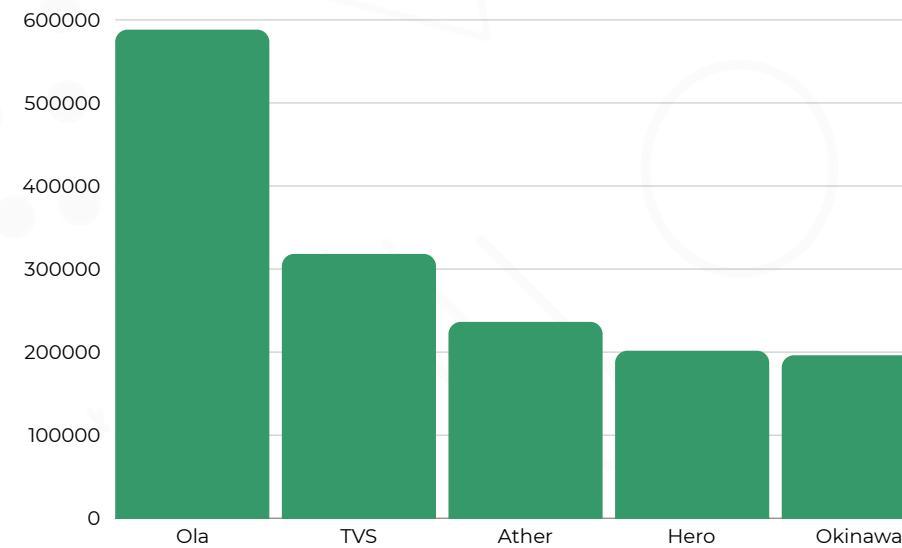
### Consumer Acceptance

Ongoing consumer concerns about range, cost, and reliability of EVs

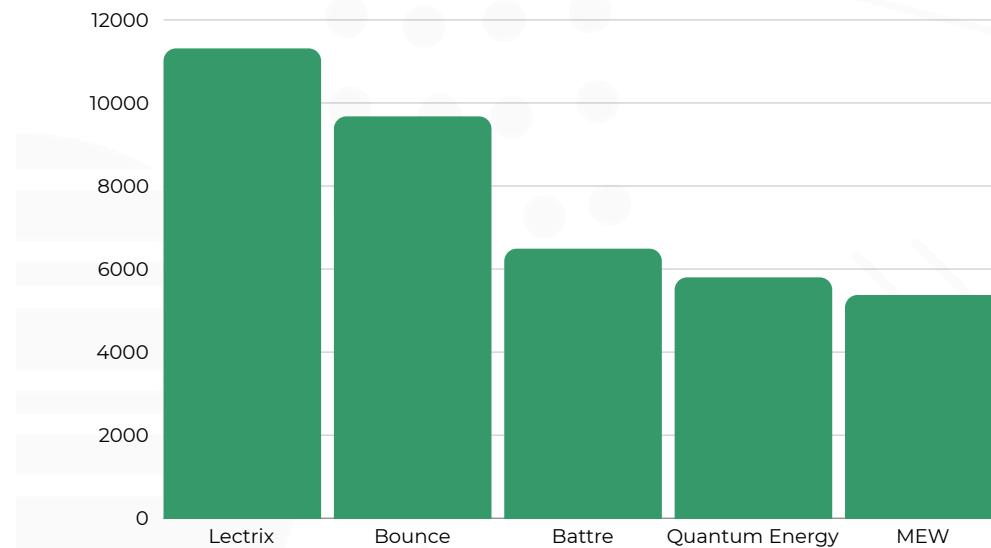


## Top & Bottom 5 Makers by 2W Sales

Top 5 Makers

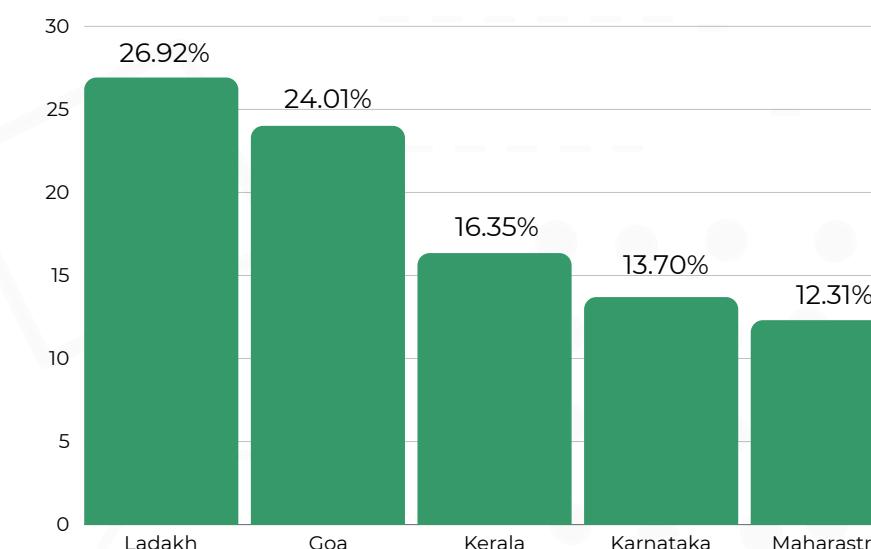


Bottom 5 Makers

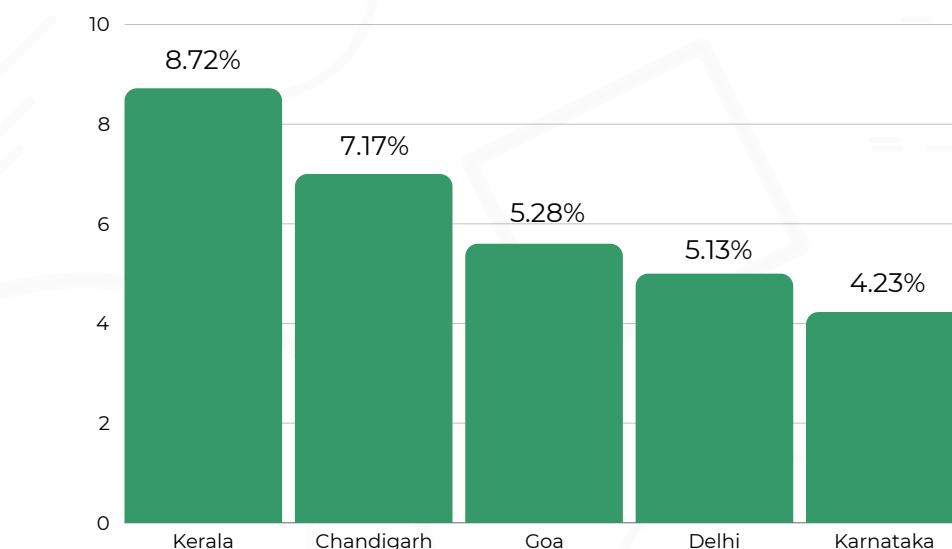


## Top 5 States by 2W & 4W EV Penetration

Top 5 States by 2W Penetration

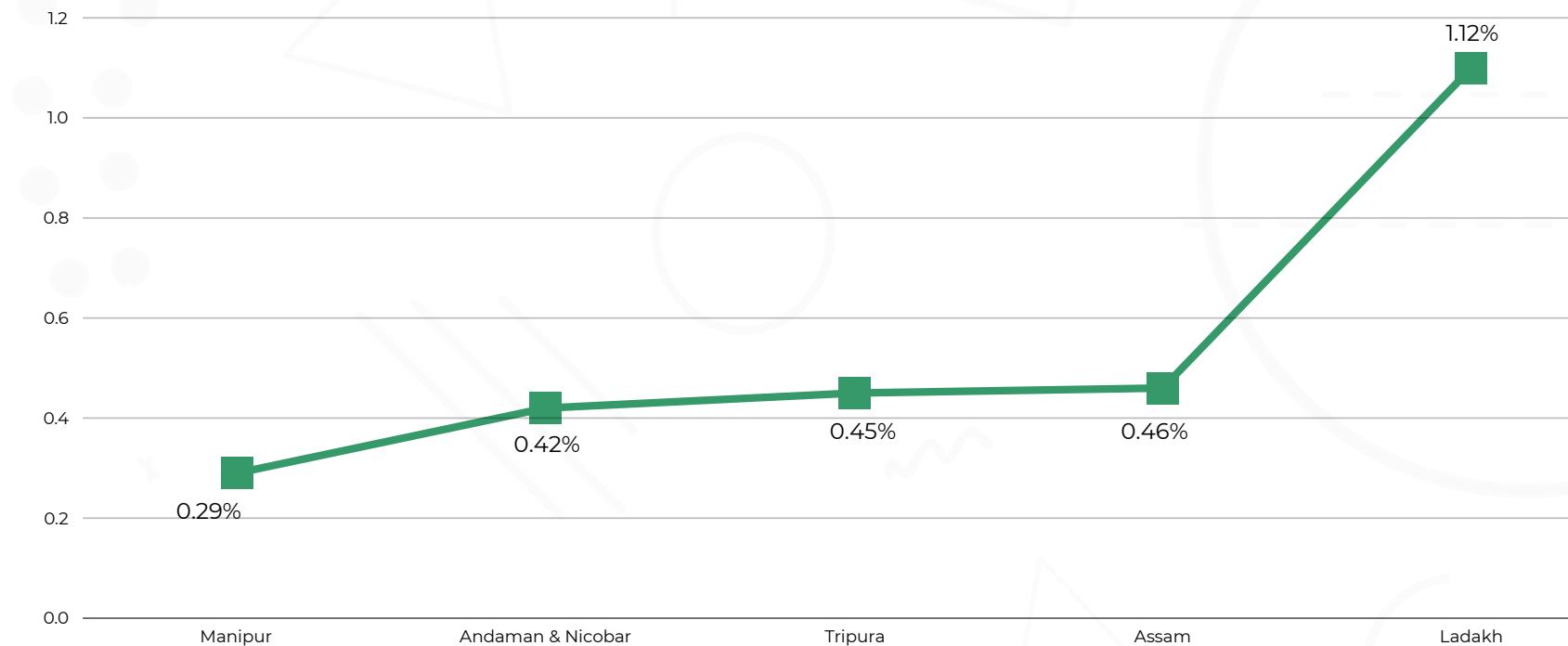


Top 5 States by 4W Penetration

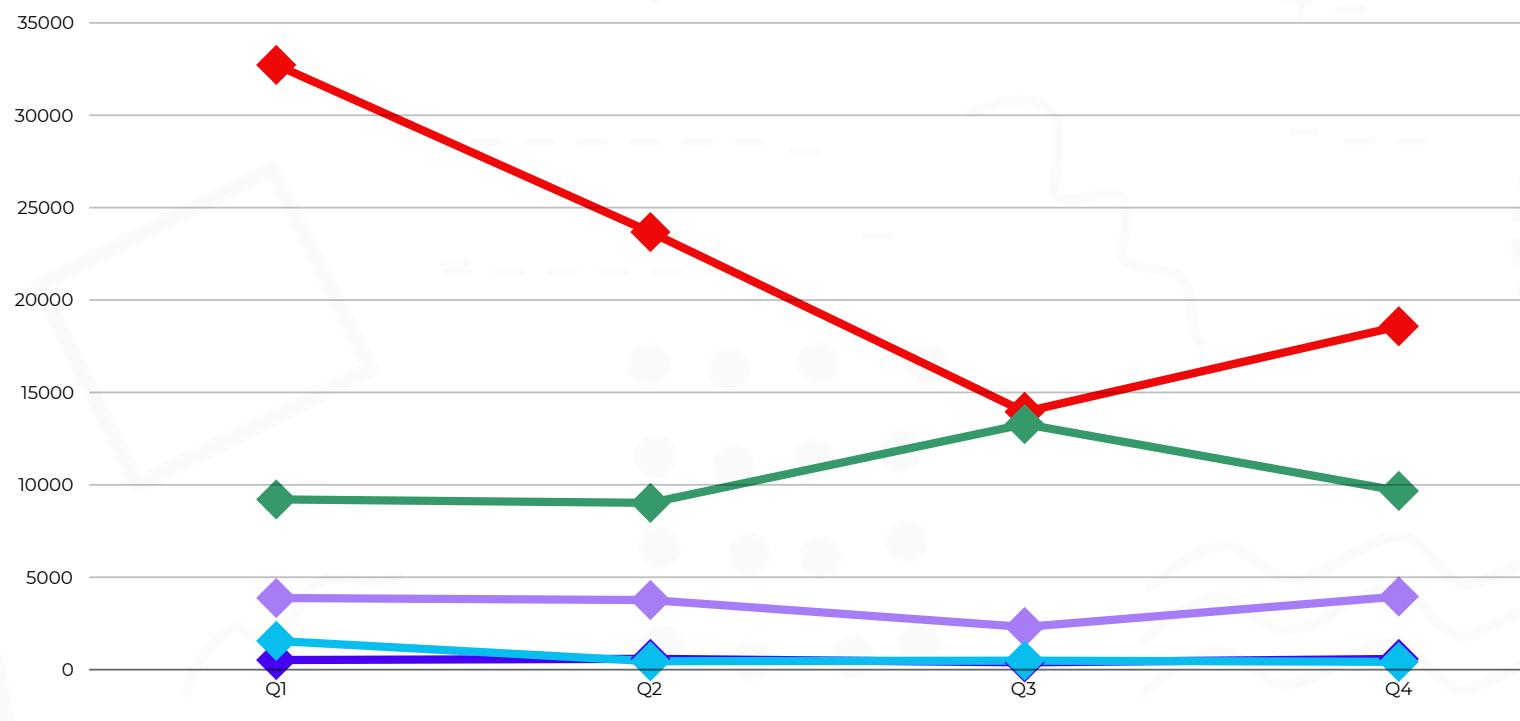




## States with Negative EV Sales Growth



## Quarterly Sales Trends for Top 5 4W EV Makers



Labels	Tata	MG	Mahindra	Hyundai	BYD
Q1	32723	3876	9212	519	1555
Q2	23678	3766	9025	586	454
Q3	13953	2309	13286	392	487
Q4	18581	3957	9670	579	423

Tata

MG

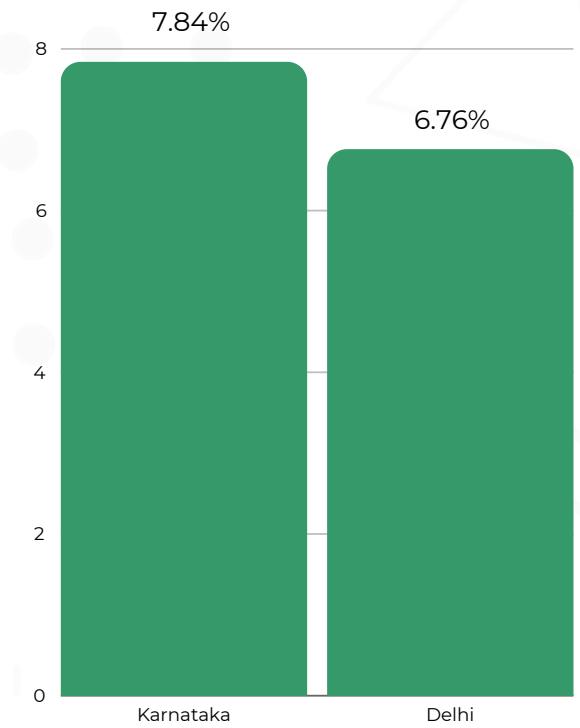
Mahindra

Hyundai

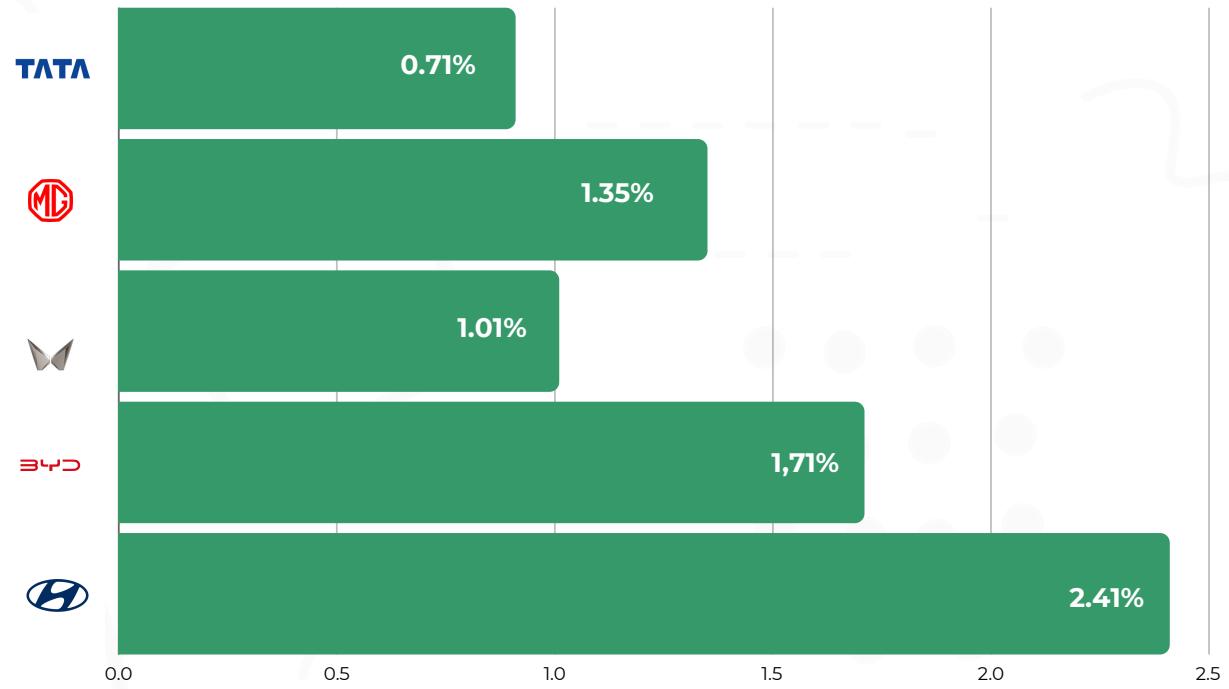
BYD



## EV Sales & Penetration: Delhi vs Karnataka

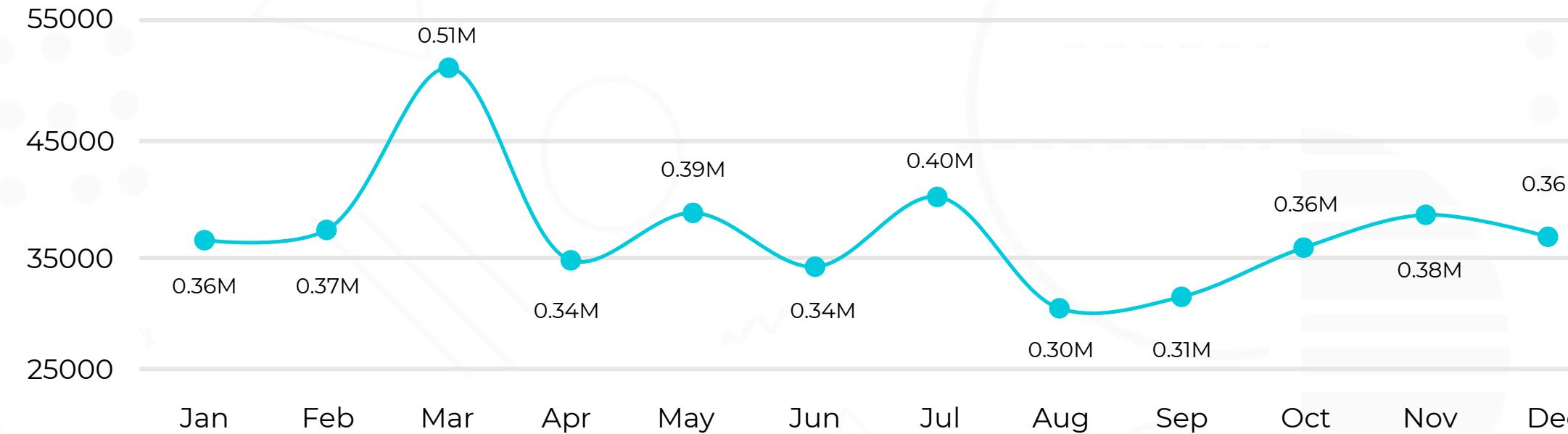


## CAGR in 4W Sales for Top 5 Makers

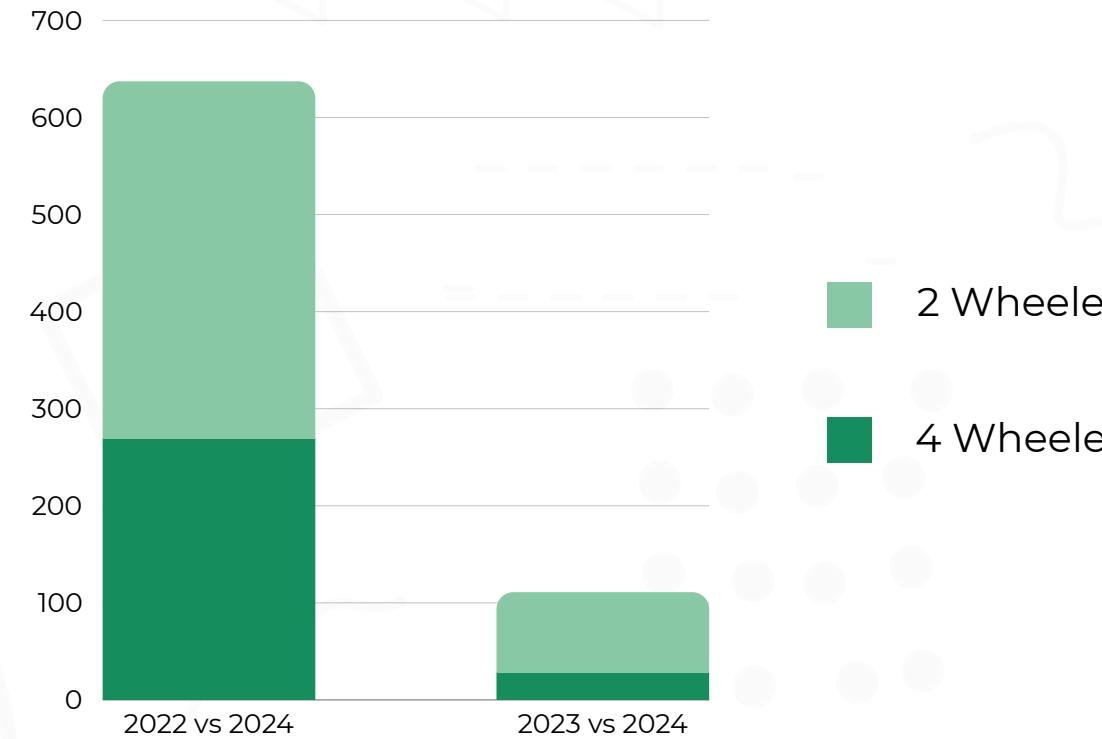




## Peak & Low Season Months for EV Sales



## Revenue Growth Rate of 2W & 4W EVs in India



### Year-to-Year

**2 Wheeler RG%**

2022 - 2024

269.28%

367.79%

2023 - 2024

28.13%

83.08%

*The significant drop in the Revenue Growth % is due to Base Effect*



## Top 10 States by CAGR in Vehicle Sales

State	CAGR%
Ladakh	269.28% ▲ 4
Manipur	199.90% ▲ 1
Chandigarh	135.54%
Kerala	120.97% ▼ 2
Odisha	114.96%
Jammu & Kashmir	113.12% ▲ 3
Uttarakhand	96.96% ▼ 5
Gujarat	96.23%
Jharkhand	94.56% ▼ 6
Sikkim	94.04%



## Projected EV Sales for Top 10 States by 2030

State	Total Sales
Maharashtra	949,561
Karnataka	679,629
Tamil Nadu	507,091
Uttar Pradesh	432,876
Andhra Pradesh	415,751
Gujarat	323,169
Kerala	251,612
Chhattisgarh	116,801
Delhi	115,430
Jammu & Kashmir	61,559

The projected sales data is generated from historical data and tends to change anytime due to government policy, social trends, economic conditions and much more



# Identifying the Optimal State for AtliQ Motors' EV Manufacturing Unit

**Tamil Nadu** will be the optimal state for setting up a Manufacturing unit because

## Favorable Business Environment

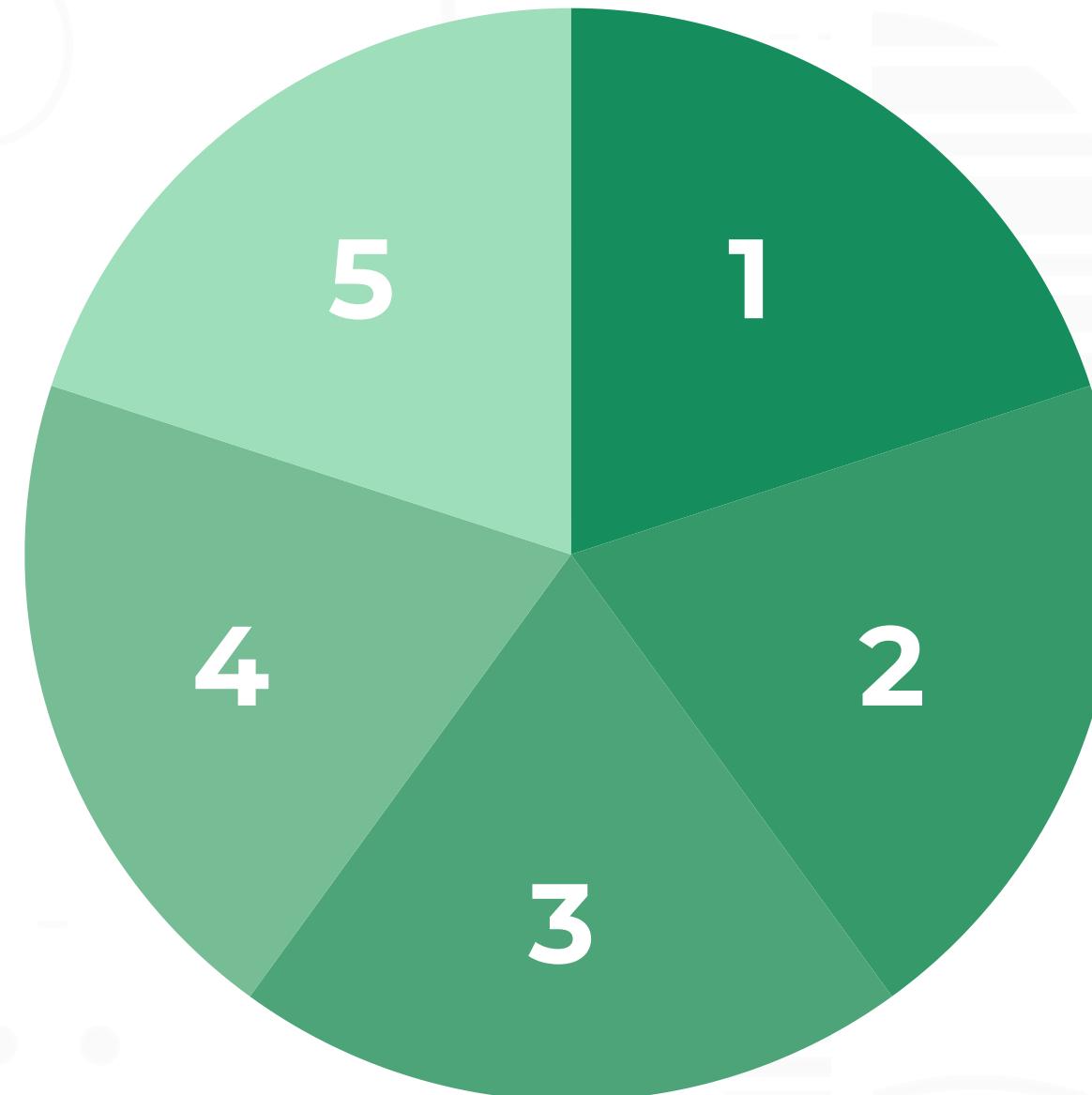
The state ranks high in ease of doing business, offers political stability, and has a strong focus on sustainability, making it a great choice for a long-term investment

*Tamil Nadu consistently ranks in the **top 3 states** in India for ease of doing business*

## Excellent Infrastructure

With well-developed ports, roads, and industrial parks, Tamil Nadu provides easy access to raw materials and export markets.

*Chennai Port handles more than **60% of India's** automotive exports*



## Government Support

The state offers attractive incentives, subsidies, and a strong EV policy that encourages investment in electric vehicle manufacturing.

*The Tamil Nadu government has set a goal to attract investments worth **₹50,000 crores in the EV sector by 2025***

## Automotive Hub

Tamil Nadu is a major center for the automotive industry, with established factories and suppliers, making it easier to set up and run a manufacturing plant

*Tamil Nadu contributes over **35% of India's** total automobile production*

## Skilled Workforce

Tamil Nadu has a large pool of skilled workers and engineers, thanks to its many technical colleges and a long history in automotive production

*The state produces **over 2 lakh engineering graduates** annually, ensuring a steady supply of skilled labor*



## Recommendations for Atliq Motors

### Invest in Charging Infrastructure

Before entering into India EV Space, invest and launch more public charging stations wide-spread across the nation to reduce range concerns

### Leverage Government Support

Utilize all the subsidies, tax incentives, reduced GST and other schemes that are focused for manufacturers to reduce and enhance the market entry

### Made in India

Set-up a manufacturing plant in Tamil Nadu as the state provides more favorable policies and incentives to reduce manufacturing cost and faster market access

### Build Strong Brand Awareness

The most important recommendation of all, building a strong brand presence is what makes a strong impact of Atliq Motors in people's mind with innovative commercials to brand campaigns



## Ideal Brand Ambassador for AtliQ Motors' EV Launch in India



**Manu Bhaker**



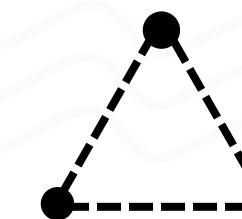
**AR Rahman**

Cross-Industry Influence



**Hardik Pandya**

Alignment with Brand Value



Avoid Brand Conflicts

# Dashboard Screenshot

# Market Overview

Manufacturer Analysis

Geographical Influence

## India EV Market Analysis



**Vehicle Category**

- 2 Wheeler Segment
- 3 Wheeler Segment
- 4 Wheeler Segment
- MMV Segment

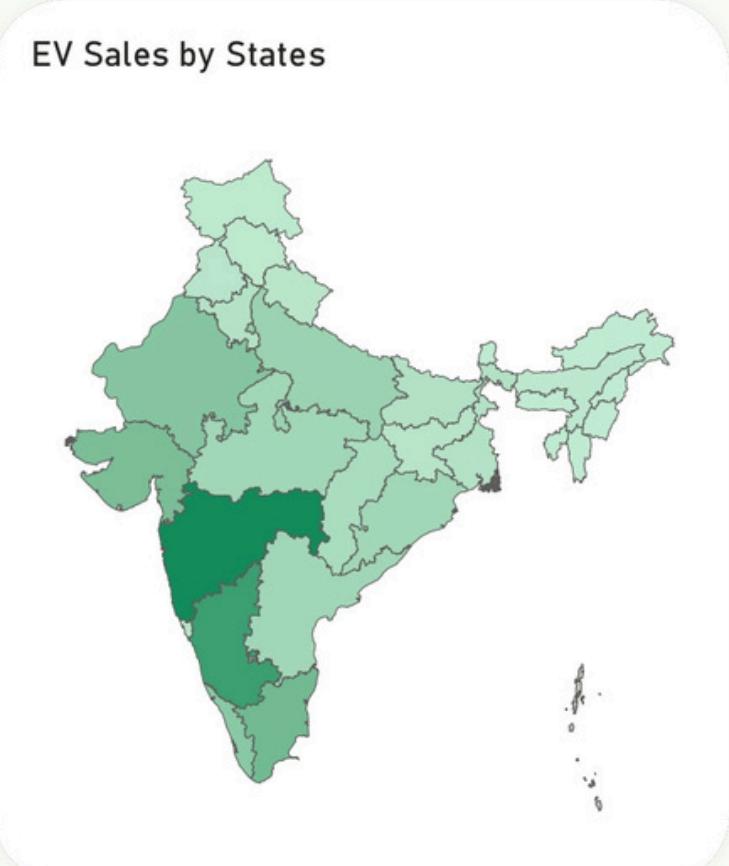
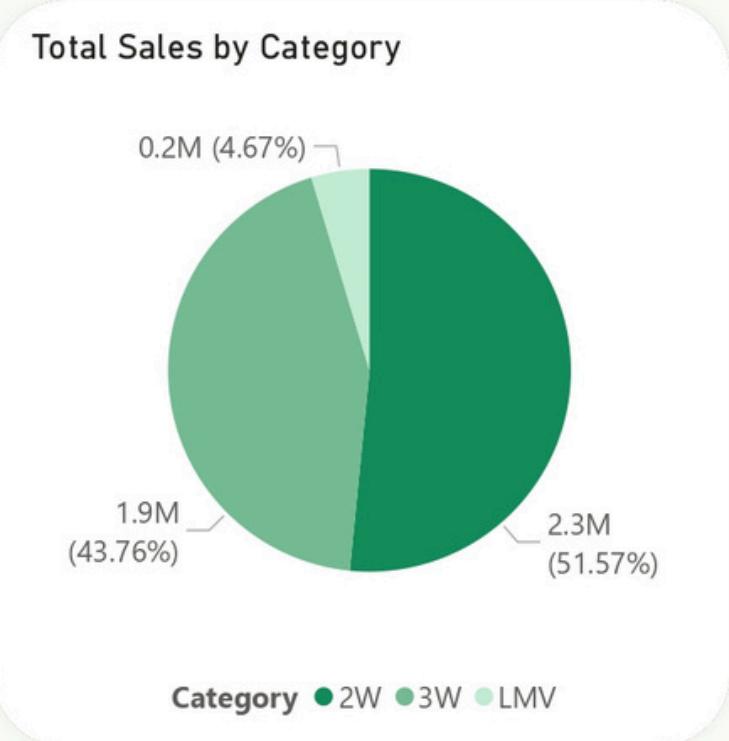
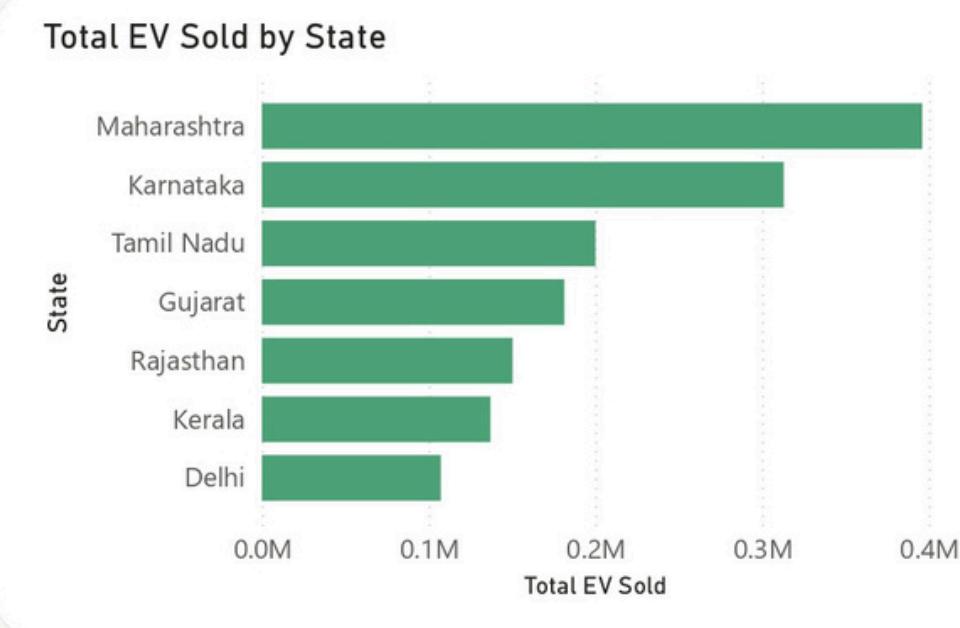
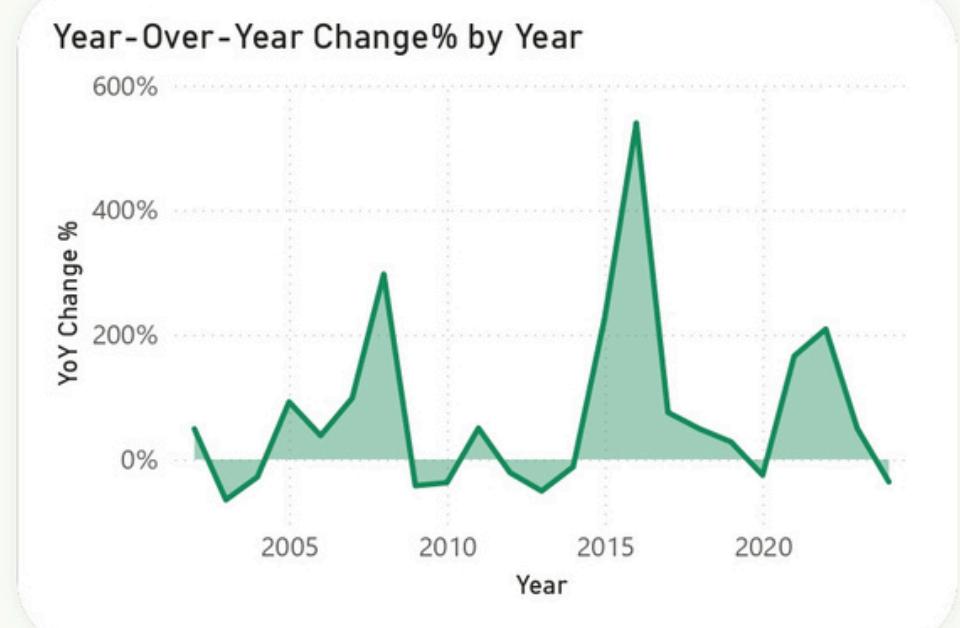
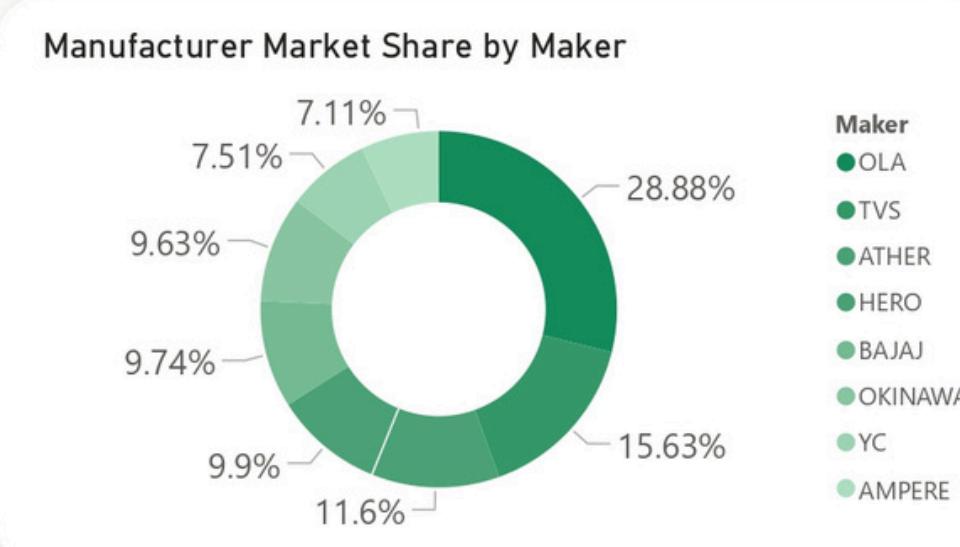
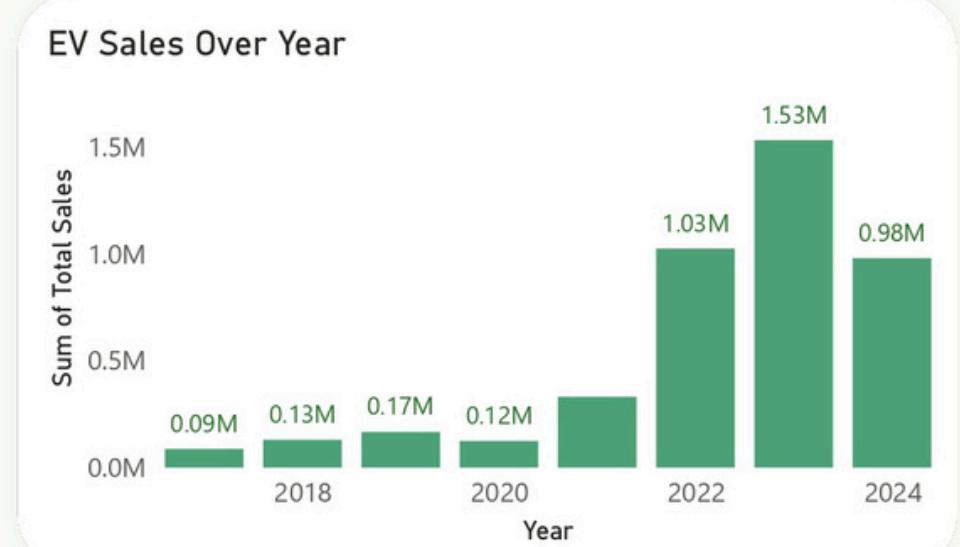
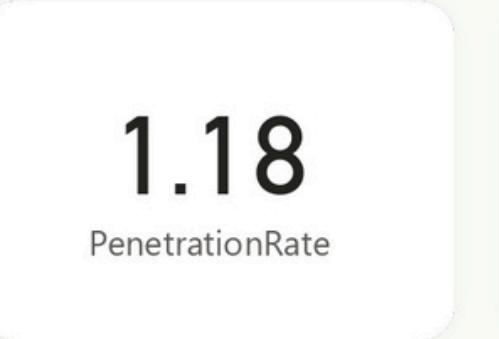
**Quarter**

- Q1
- Q2
- Q3
- Q4

**Year**

2001 2024

A horizontal timeline slider with markers at 2001 and 2024.



# India EV Market Analysis

Market Overview

## Manufacturer Analysis

Geographical Influence



### Vehicle Category

2 Wheeler Segment

3 Wheeler Segment

4 Wheeler Segment

MMV Segment

### Quarter

Q1

Q2

Q3

Q4

### Year

2001 2024



**2.3M**

Sum of Sales

**1.9M**

Sum of Sales

**59.79**

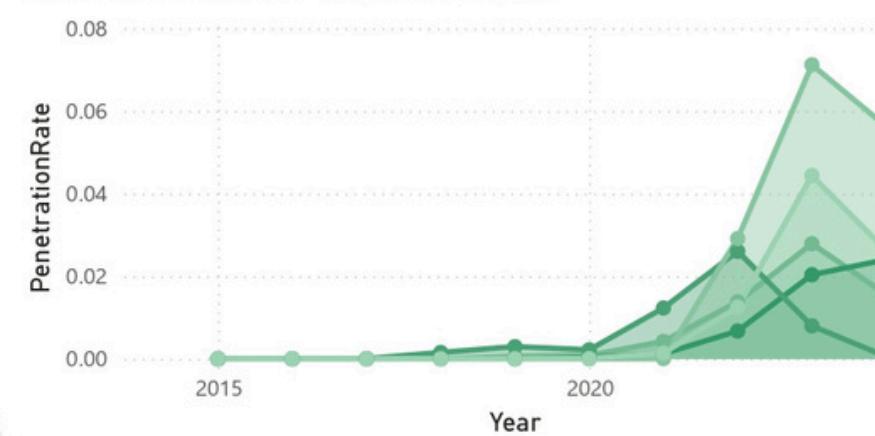
LMV Market Share Over Time

**2.18**

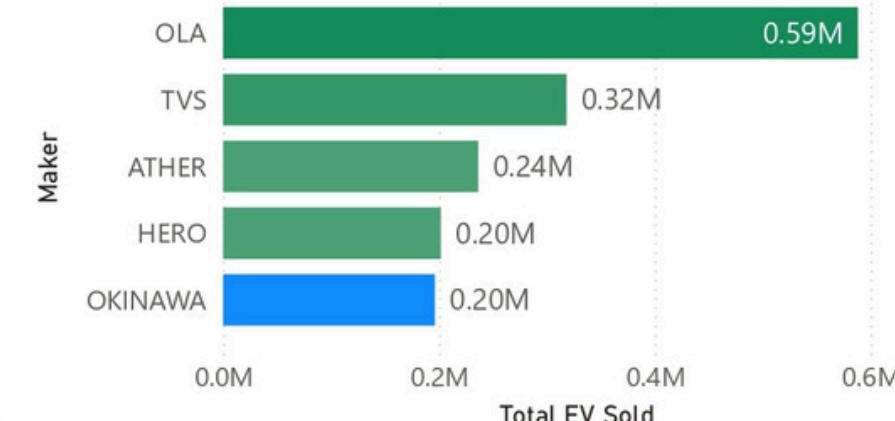
4W Revenue Growth Rate

### PenetrationRate by Year and Maker

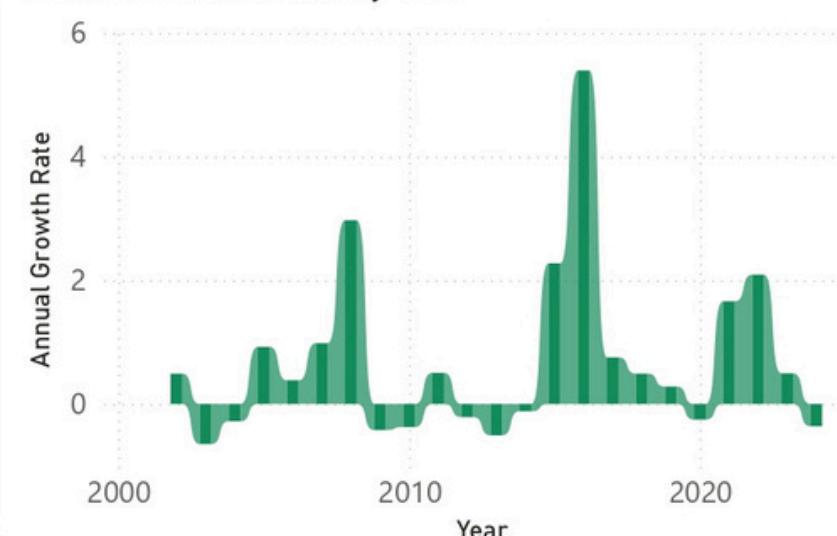
Maker ●ATHER ●BAJAJ ●HERO ●OLA ●TVS



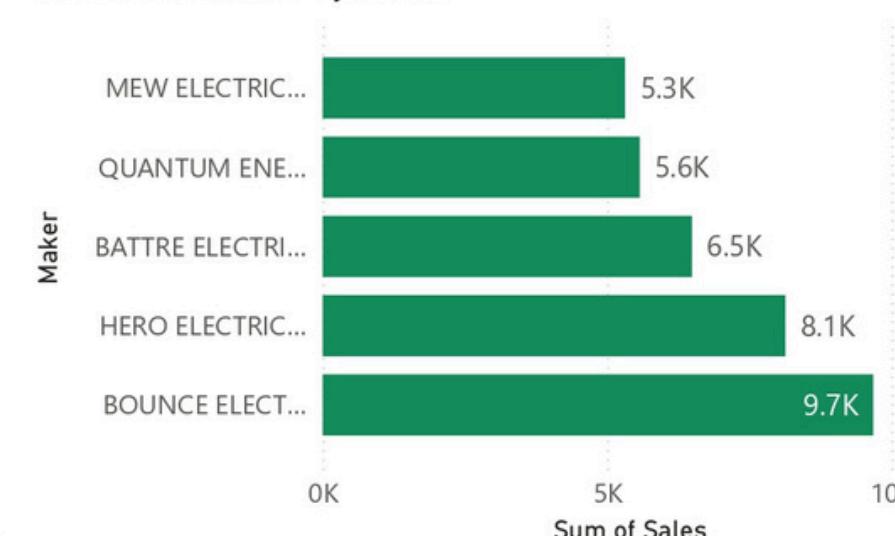
### Top 5 Makers by Sales



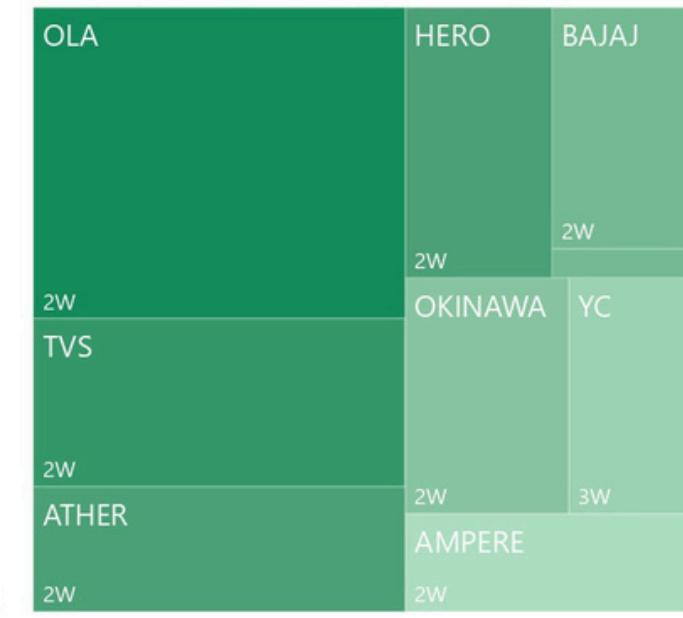
### Annual Growth Rate by Year



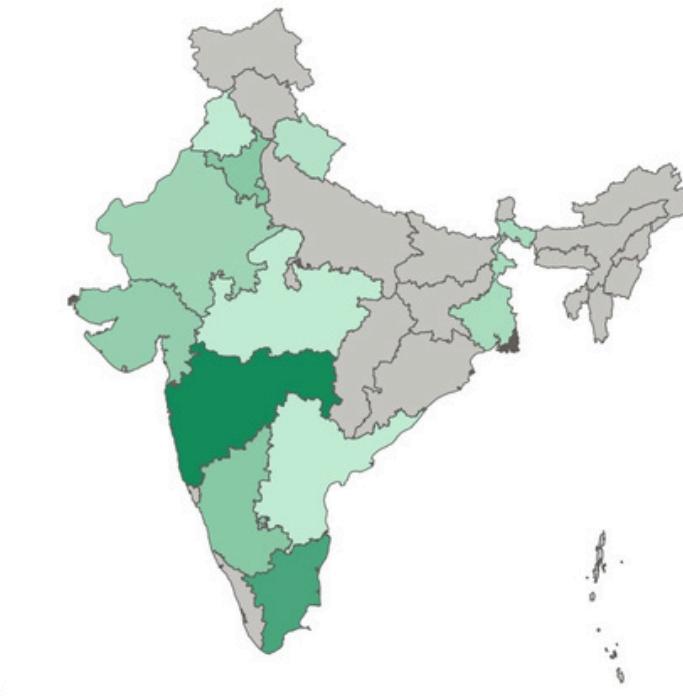
### Bottom 5 Makers by Sales



### Total Sales by Maker and Category



### EV Makers by States





## Vehicle Category

2 Wheeler Segment

3 Wheeler Segment

4 Wheeler Segment

MMV Segment

## Quarter

Q1

Q2

Q3

Q4

## Year

2001

2024

4.4M

Total Sales

1T

Total Revenue

1.93

Annual Growth Rate

1.70

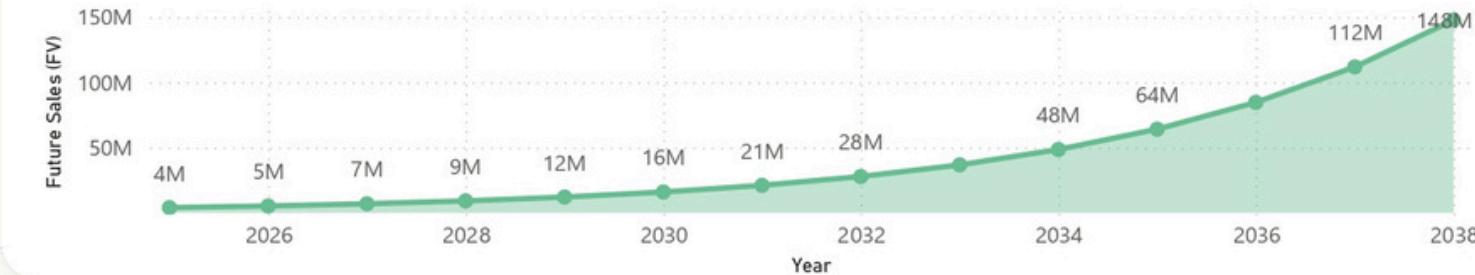
2W Revenue Growth Rate

3.95M

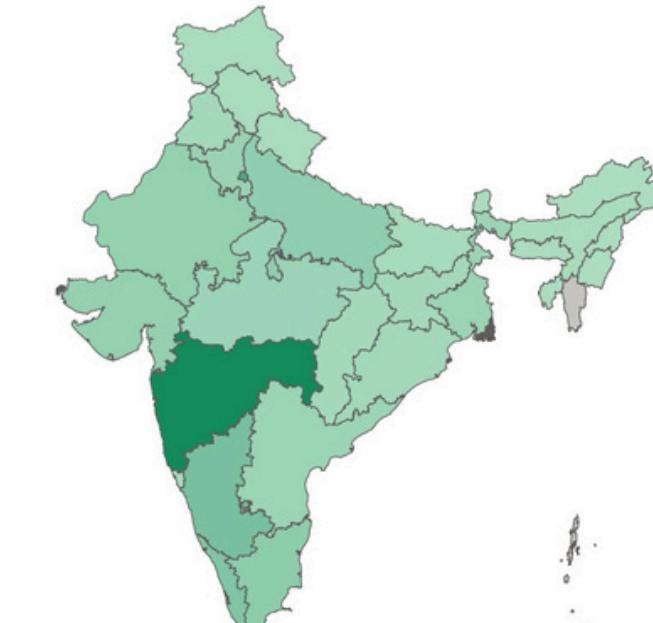
Future Sales (FV)

State	Total EV Sold	Operational PCS	Penetration Rate
Goa	19684	113	9.84
Karnataka	312995	1041	7.84
Delhi	107312	1886	6.76
Kerala	137060	852	6.64
Maharashtra	396045	3079	6.49
Odisha	78267	198	4.63
Rajasthan	150366	500	4.55
Gujarat	181389	476	4.40
Tamil Nadu	200062	643	4.30
Chandigarh	5279	12	4.04
Chhattisgarh	53804	149	4.03
Puducherry	5536		3.67
Andhra Pradesh	77422	327	3.39
Uttarakhand	15127	76	2.43
Madhya Pradesh	78979	341	2.26
Haryana	30797	377	1.62
Punjab	23833	158	1.54
Jammu and Kashmir	5971	47	1.44
Jharkhand	18461	135	1.35
Uttar Pradesh	95203	582	1.17

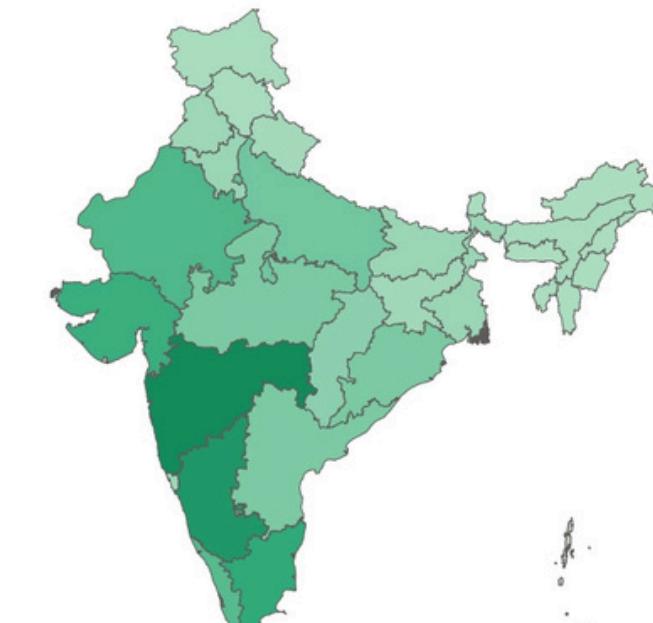
## Future Sales (FV) by Year



## Operational PCS by State



## EV Sales by States



The original report, meticulously crafted with comprehensive market research, including in-depth analysis of customer demographics, psychographics, and brand strategies has been thoroughly analyzed by

