



I N N O V H E R
ACCELERATING INCLUSIVITY

ELECTRIC VEHICLES

Proposed By: **Yash khoji**

2024

**SECTOR
REPORT**

TABLE OF CONTENTS

Market Growth

- Global Market
- Indian Market

Indian Sector Growth

- Drivers
- Challenges

Sector USP

- Features
- Innovations

Major players

- India Leaders
- Global Leaders
- Emerging Startups

Indian Technological Advancements

- Current Technologies
- Emerging Technologies

Overall Summary of E-motorad,Aurita bikes,Motovolt,Hero Lectro

- Company summary
- Brand Unique Selling Propositions (USPs)
- Product Landscape(Sku analysis)
- Traction
- Sales Channels/Gtm/Target customer/Demographic
- Funding Trajectory
- Digital Media Presence

EV Cycles Sector Report

1. Market Growth

Global Market:

- **Global Total Addressable Market (TAM):** The global e-bike market was valued at approximately USD 43.59 billion in 2023.
Source: [Fortune Business Insights](#)
- **(CAGR):** The market is projected to grow at a CAGR of 14.6% from 2024 to 2032.
Source: [Fortune Business Insights](#)
- **Market Size Forecast:** By 2032, the global e-bike market is expected to reach around USD 148.70 billion.
Source: [Fortune Business Insights](#)

Indian Market:

- **Total Addressable Market (TAM):** In India, the e-bike market was valued at approximately USD 1,178 million in 2023.
Source: [Imarc Group](#)
- **(CAGR):** The Indian e-bike market is anticipated to grow at a CAGR of 10.6% during the forecast period of 2024 to 2032.
Source: [Imarc Group](#)
- **Market Size Forecast:** By 2032, the market is projected to reach approximately USD 2,917.4 million..
Source: [Imarc Group](#)

2. Indian Sector Growth

Drivers:

- **Environmental Concerns:** India targets a 45% reduction in carbon emissions by 2030, encouraging eco-friendly transportation options like e-bicycles.
Source: [Mordor Intelligence](#)
- **Government Incentives and Policies:** The Indian government's approval of a ₹109 billion (\$1.3 billion) incentive scheme aims to boost the adoption of electric vehicles, including e-bikes, to reduce pollution and promote cleaner fuels.
Source: [Reuters](#)
- **65% of the demand** for electric bicycles is from Tier 2 and Tier 3 cities.
Source: [researchandmarkets](#)

Challenges:

- Most electric bikes available in the market today have a range of around **60-70 km** on a single charge, which may not be sufficient for long-distance travel.
Source: [timesofindia.indiatimes](#)
- According to a survey conducted by YouGov, only **31%** of Indians are aware of e-bikes. This lack of awareness makes it difficult for companies to market their products and reach potential customers.
Source: [timesofindia.indiatimes](#)
- **High Initial Costs:** E-cycles are priced significantly higher than traditional bicycles, often starting around **₹25,000 to ₹40,000**, making them less accessible to middle- and lower-income groups.
Source: [Economic Times](#)

3. Indian Sector USP

Features:

- **Motovolt** offers e-bikes equipped with powerful motors and advanced components like lithium-ion batteries, providing speeds up to 25 km/h and a range of up to 105 km.
- **Smart Features and IoT Integration**-Hero Lectro-provides app connectivity for tracking and control.
- **Cost Efficiency and Accessibility**-EMotorad-focuses on affordable, high-performance e-bikes for diverse users.

Innovations:

- **Battery-Swapping Systems**-Hero Lectro-is working on modular battery designs for easier swaps.
- **IoT-Enabled Smart Features**-Motovolt-integrates IoT for tracking and performance analytics.
- **Advanced Lightweight Materials**-EMotorad-employs lightweight frames for improved ride efficiency.

4. Major Players

Global Leaders:

- **Giant Manufacturing (1972)**: Largest bicycle maker; \$2B revenue.
- **Trek Bicycle Corporation (1976)**: \$1B revenue.
- **Accell Group (1998)**: EU e-bike leader; 1.1M units sold/year.

India Leaders:

- **Hero Lectro (2020)**: 70% of India's e-bike market.
- **EMotorad (2020)**: Plans world's largest e-cycle factory.
- **Motovolt (2019)**: 2nd-largest e-bike brand in India.

Emerging Startups:

- **VAAN Moto (2021)**: Lifestyle e-bikes; major selling regions are Kerala, Tamil Nadu, and Mumbai.
- **Swagtron India (2023)**: AI-powered EV bicycles for fast, reliable emergency response.
- **Svitch Bike (2019)**: Foldable e-bikes; prominent in Ahmedabad, expanding pan-India.

5. Indian Technological Advancements

Current Technologies:

- **Lithium-Ion Batteries:** Modern e-bikes in India are equipped with lithium-ion batteries that offer ranges between 50 to 100 kilometers per charge, catering to various commuting needs.
Source: [E-Vehicle Info](#)
- **Fast-Charging Capabilities:** Advancements in charging technology have reduced e-bike battery charging times, with some systems achieving a full charge in under 20 minutes.
Source: [New Atlas](#)
- **Cost-Effective Alternatives:** Indian companies have introduced sodium-ion battery technology, potentially reducing battery costs for electric vehicles by 25-30%. These batteries offer longer lifespans, faster charging, and better performance in varied temperatures.
Source: [Wikipedia](#)

Emerging Technologies:

- **Solid-State Batteries:** These batteries provide higher energy density and improved safety. For instance, Stromer has introduced a solid-state ceramic battery for e-bikes, significantly decreasing charging times to just a few minutes.
Source: [Interesting Engineering](#)
- **Artificial Intelligence (AI):** AI is being utilized to develop EV batteries that charge faster, hold more energy, and last longer, addressing key consumer concerns and enhancing the overall efficiency of e-bikes.
Source: [Business Insider](#)
- **Lightweight Materials:** The use of materials like carbon fiber and advanced aluminum alloys reduces e-bike weight, improving performance and handling. Manufacturers are increasingly adopting these materials to enhance ride quality and energy efficiency.
Source: [TechLog360](#)

Conclusion

The Indian e-bike market, while still maturing, is poised for substantial growth due to its alignment with global sustainability goals and rapid technological advancements. Key players and startups are leveraging innovations to overcome adoption barriers, addressing range, cost, and consumer awareness challenges. With significant potential in Tier 2 and Tier 3 cities and government backing, the e-bike sector is set to revolutionize eco-friendly transportation in India.

Research document

Vigor competitors

Overall Summary:

Companies and features	Emotorad	Aurita	Motovolt	Hero-Lectro
Founder & Incorporation	2020 Kunal Gupta Aditya Oza Sumedh Battewar Rajib Gangopadhyay	July 4 2018 Raghuvveer Chadalavada Abhijit Mane Gaurav Mehrotra Pandey Raghunath Satish Gowd	December 26, 2019 Tushar Choudhary	2020 Aditya Munjal
Tagline	"Ride the Future, One Pedal at a Time."	"creating sustainable urban mobility"	"Own it"	"Ride the Change."
Usp	Affordability with Premium Quality Global Presence with Local Focus Eco-Conscious Innovation	Ultra Utility Design Versatile Cargo Solutions Enhanced Comfort with Dual Suspension	Advanced Battery Safety German Engineering for Indian Roads Comprehensive Doorstep Service	Multi-Mode Riding Options BikeDoctor Detachable Battery System
Latest revenue	Annual Revenue ₹128Cr 113% YOY as on Mar 31, 2023	Annual Revenue ₹1.46Cr 127% YOY as on Mar 31, 2024	Annual Revenue ₹21.3Cr 137% YOY as on Mar 31, 2023	Annual Revenue ₹3.37L 20% YOY as on Mar 31, 2023
Target Customer	Age-15-55, Upper middle class and premium segment	Age-15-55, Middle class and upper middle class	Age-15-55, Upper middle class, premium segment	Age-15-55, Middle class
Presence	Tier-1,2,3 and global	Tier-1,2	Tier-1,2,3	Tier-1,2, Less presence in tier-3

Most selling regions	Maharashtra, Karnataka, Delhi NCR, Gujarat	Chennai, Hyderabad, Bangalore, Mumbai, Pune, Ahmedabad, and some parts of Goa.	Kolkata, Delhi, Mumbai, Bangalore, Hyderabad, Chennai, Pune.	Not specified
Mode of business	b2b,b2c,d2c,d2g	B2c,b2b,less focus on d2c	b2b,d2c	b2b,b2c,d2c
Funding stage	Angel	Undisclosed	seed	Bootstrap
Social Media presence	Good	Less	Good	Good
Website	https://www.emotorad.com/	https://auritabikes.com/	https://motovolt.co/	https://www.herolectro.com/

Company report Emotorad

Company Summary

- **Incorporation Date & Location:** Founded in 2020, Pune, Maharashtra, India.
- **Founder Background:**
 1. **Kunal Gupta (Co-Founder & CEO):**Ex-Co-Founder MyRide, ONN Bikes. Rashtrasant Tukadoji Maharaj Nagpur University BE 2013, NICMAR University PGDM 2015
 2. **Aditya Oza (Co-Founder & CMO):**Ex-Co-Founder My ride, AI Tayer Stocks, Niyati Enterprise, NICMAR. CEPT University BTech 2014, NICMAR University PGP 2016
 3. **Sumedh Battewar (Co-Founder & CBO):**Ex-Minda, Autocop India. Savitribai Phule Pune University BE, Indira Institute of Management, Pune MBA 2016
 4. **Rajib Gangopadhyay (Founder & MD):**Ex-Vertical Head - Operation ONN BIKES (Motocruizer Technologies India Pvt. Ltd.)

Brand Statement (Tagline):"Ride the Future, One Pedal at a Time."

Brand Unique Selling Propositions (USPs):

1. **Affordability with Premium Quality:** EMotorad combines advanced technology with affordability, making premium electric bicycles accessible to a broader audience.
2. **Global Presence with Local Focus:** While catering to international markets, EMotorad emphasizes understanding and meeting the unique needs of Indian consumers, offering products suitable for diverse terrains and commuting styles.
3. **Eco-Conscious Innovation:** The company is committed to sustainability, designing eco-friendly products that promote green mobility and contribute to reducing carbon footprints.

Product Landscape:(Sku analysis)

Feature	E-Motorad T-Rex	E-Motorad X1	E-Motorad EMX	E-Motorad Doodle
Features	Dual suspension, suited for both on-road and off-road	Foldable, compact design ideal for city commutes	Designed for adventure and off-road riding	Fat tires for stability on rough terrains
Body Frame	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Price	₹42,999	₹24,999	₹54,999	₹76,999
Tyres	27.5-inch, all-terrain	20-inch tires	27.5-inch all-terrain	20×4-inch fat tires
Battery Range	Up to 45 km on a full charge	Around 30 km per charge	Up to 50 km per charge	Up to 50 km per charge
Speed	25 km/h	25 km/h	25 km/h	25 km/h
Size	Medium frame, suitable for most adult riders	Compact, foldable frame	Medium frame, aimed at adventure seekers	Large, sturdy frame for stability
Electricity Utility	Home charging, around 4-5 hours	4-5 hours charging time	4-5 hours charging time	5-6 hours charging time
Motor Power	250W motor	250W motor	250W motor	250W motor
Weight	Approximately 25 kg	Approximately 20 kg	Approximately 21 kg	Approximately 30 kg
Design	Ergonomic with adjustable seat and handlebar	Compact and urban-oriented	Adventure-focused with high durability	Rugged, built for stability and tough conditions
Technology	LED display with speed and battery indicators	LED display with basic indicators	LED display, PAS sensor	LED display, PAS, and throttle control
Suspension	Front and rear suspension	Basic front suspension	Front suspension for smoother rides	Front and rear suspension

Carrying Capacity	Up to 100 kg	Up to 90 kg	Up to 120 kg	Up to 150 kg
Battery Placement	Integrated into the frame	Integrated into the frame	Frame-integrated battery	Frame-integrated battery

Traction:

Year	Users and Company Growth	Revenue Growth	Product Development
2020-2021	<ol style="list-style-type: none"> Sold 9,000 e-bikes exporting 6,300 of its bikes to the UAE, Japan and Nepal. 	3.6 Cr Source:Traxcn	<p>Inception and Initial Product Launch:First Product - EMX: The company introduced the EMX, India's first dual-suspension e-bike, capable of reaching speeds up to 28 km/h and covering significant distances on a single charge.</p> <p>YourStory</p>
2021-2022	<ol style="list-style-type: none"> Sold 16,000 e-bikes in India. 11,000 units overseas Its presence across 170 offline dealers in 65 cities in the country. 	60.2 Cr; 20X growth Source:Traxcn	<p>Expansion of Product Line:New Models: Building on the success of the EMX, EMotorad launched additional models, including the T-Rex, a mountain e-bike, and the Doodle, a fat-tire foldable e-bike, catering to diverse customer preferences.</p> <p>Datanyze</p>
2022-2023	<ol style="list-style-type: none"> 170+ dealers Exported 17,000 units The company has operations in the UAE, Japan and Nepal.The company said it is eying to sell some 3,000 e-bikes in the first few quarters across these five countries. 	128 Cr; 112% YoY growth Source:Traxcn	<p>Global Presence: EMotorad expanded operations to approximately 18 countries, including the US, UAE, Japan, Australia, and Nepal, broadening its international footprint.</p> <p>Entracr</p>

2023-2024	<ol style="list-style-type: none"> Customer base 100,000 globally 50,000 exported globally Over 12 experience stores across major cities and a network of more than 350 dealers throughout India. EMotorad holds a substantial 75% market share in India's e-cycle segment, indicating a dominant position in the national market. EV Mechanica 	144 Cr; 370% growth Source:Traxcn	<p>Gigafactory Announcement: EMotorad announced plans to construct a gigafactory with an annual production capacity of 550,000 units, aiming to strengthen its manufacturing infrastructure. Inc42</p> <p>Market Position: The company ranked among the top five EV two-wheeler companies in India based on unit sales, reflecting its competitive position in the market. EV Mechanica</p>
-----------	--	---	---

Source:

- https://economictimes.indiatimes.com/industry/renewables/electric-bike-startup-emotorad-expanding-to-europe/articleshow/94011432.cms?utm_source=contentofinterest&utm_medium=ext&utm_campaign=cppst
- <https://auto.economictimes.indiatimes.com/news/two-wheelers/emotorad-exports-over-50000-e-bikes-to-18-countries/99031616>
- <https://www.thehindubusinessline.com/markets/ev-start-up-emotorad-ends-fy24-with-370-growth-in-domestic-market/article68082798.ece>
- https://canvasbusinessmodel.com/blogs/competitors/emotorad-competitive-landscape?utm_source=chatgpt.com
- <https://www.moneycontrol.com/news/automobile/emotorad-raises-rs-24-crore-9390741.html>
- <https://auto.economictimes.indiatimes.com/news/industry/emotorad-expands-international-footprint-launches-motorcycles-in-japan-nepal/88324812>

Sales Channels/Gtm/Target customer/Demographic:

Target Customer	Subpoints	Presence	Specific Details
Age range	15-25	✓	teenagers seeking mobility and independence
	25-40	✓	fitness commuters within a short distance of their workplace
	40-55	✓	recreational riders in their late 40s
Gender	Male	✓	Approximately 74.76% of EMotorad's website visitors

			are male. Source: Similarweb
	Female	✓	25.24% are female. Source: Similarweb
	Others	✓	Inclusive offerings for diverse gender identities. brandequity.economictimes
Geography	Tier I	✓	<ol style="list-style-type: none"> Delhi: Experience centers in Jhandewalan and Nirman Vihar. Bengaluru: Experience center in Jayanagar. Mumbai: Presence through dealer networks. Chennai: Presence through dealer networks. Kolkata: Presence through dealer networks.
	Tier II	✓	<ol style="list-style-type: none"> Pune: Headquarters and significant market presence. Ahmedabad: Presence through dealer networks. Hyderabad: Experience center in Madhapur. Nagpur: Experience center in Sitabuldi. Kochi: Experience center in Maradu. Indore: Experience center in Rajendra Nagar. Noida: Experience center in Sector 18. Jaipur: Presence through dealer networks. Nagpur: EMotorad operates an Experience Store in Sitabuldi, Nagpur.

			10. Coimbatore: Presence through authorized dealers or retailers.
	Tier III	✓	Sonipat and expanding its presence.
	Tier IV		Not specified
Most selling regions		✓	Maharashtra, Karnataka, Delhi NCR, Gujarat
B2B			<p>Booz Mobility: In September 2024, EMotorad partnered with Booz Mobility, a startup featured on Shark Tank India, to supply 500 electric kick scooters for intra-campus mobility in gated communities by the end of FY25. This collaboration marks India's first partnership between an Original Equipment Manufacturer (OEM) and a micro-mobility operator, aiming to revolutionize short-distance commuting in metro areas. Financial Express</p> <p>Mahendra Singh Dhoni: In April 2024, cricket icon MS Dhoni became a strategic investor and brand ambassador for EMotorad, acquiring equity in the company. Dhoni's involvement is expected to boost the brand's visibility and credibility in the competitive e-mobility market. Financial Express</p> <p>Hamleys: In December 2024, EMotorad collaborated with Hamleys to launch a new range of mobility vehicles for children under the brand name 'Formula Fun.' This initiative</p>
	Partnerships	✓	

			aims to unify India's fragmented kids' mobility market, offering products such as officially licensed cars and kick scooters. Financial Express
			<p>Offline Sales: Approximately 85% of domestic e-cycle sales are conducted through offline channels, including over 600 distributors and 12 exclusive experience stores across India. EV Reporter</p> <p>Online Sales: About 15% of sales occur online via EMotorad's official website and e-commerce platforms like Amazon and Flipkart. Channel I Am</p> <p>International Exports: EMotorad exports e-bikes to 18 countries, having shipped over 50,000 units in FY23.Economic Times Auto</p> <p>EMotorad has established a robust presence in the electric bicycle market, with over 1,000 dealerships across more than 18 countries.Emotorad</p>
	Sales	✓	
	Call center support	✓	<ol style="list-style-type: none"> 1. Customer Assistance 2. Sales Support 3. After-Sales Service 4. Feedback Collection
B2C	Online platforms	✓	<ol style="list-style-type: none"> 1. EMotorad's official website 2. Amazon 3. Flipkart
	Self-service sales	✓	<ol style="list-style-type: none"> 1. Local retail bike shops 2. Exclusive distributors
	Franchise and	✗	Not specified

	subscription		
D2C	Online stores	✓	Products are available on major e-commerce platforms such as Amazon and Flipkart, broadening market reach. Inc42
	Own Retail outlets	✓	12 Experience Stores across India in cities like New Delhi, Bengaluru, Nagpur, Hyderabad, Kochi, and others. BW Disrupt
D2G	Government collaborations	✓	German Development Cooperation (GIZ): Collaborated on sustainable urban mobility projects, including bicycle-sharing in Bengaluru. (E-Vehicle Info)
	Partnerships	✗	Not specified
	Strategic alliances	✗	Not specified
HYBRID	Combination approaches (B2B, B2C, D2C)	✓	yes
	Online platforms	✓	yes
	Franchise and subscription	✗	Not specified

Source:

1. <https://evreporter.com/exploring-emotorads-role-in-indias-e-cycle-market/>
2. <https://auto.economictimes.indiatimes.com/news/two-wheelers/emotorad-exports-over-50000-e-bikes-to-18-countries/99031616>
3. <https://inc42.com/startups/how-this-e-bike-startup-raced-to-inr-100-cr-revenue-by-redefining-micromobility/#:~:text=It%20makes%20commuting%20more%20affordable,experience%20in%20automotive%20and%20mobility.>
4. <https://www.timesnownews.com/technology-science/how-emotorad-is-revolutionizing-the-electric-cycle-market-article-100826014>
5. <https://canvasbusinessmodel.com/blogs/target-market/emotorad-target-market>

Funding Trajectory:

Date	Round Name	Amount	Pre-Money Valuation	Post-Money	TTM Revenue	Multiple	Investors & Facilitators
Apr 15, 2024	Angel	Undisclosed	-	-	-	-	Angel: Mahendra Singh Dhoni
Nov 26, 2023	Convention...	\$2.5M	-	-	-	-	-
Nov 26, 2023	Series B	\$20.0M	\$19.8M	\$39.8M	-	-	Institutional: Panthera, Alteria Capital, Green Frontier Capital, xto1; Angel: Mahendra Singh Dhoni
Aug 12, 2022	Seed	\$2.9M	\$22.0M	\$24.9M	\$11.4M	1.9x	Institutional: Green Frontier Capital, IVY Growth Associates, JB Ventures, Zan Webveda; Corporate: LetsVenture, GetVantage, aaszanventures.vdtrxn, Betachasers, pathbreakerscapital.vdtrxn; Angel: Manish Pandey, Abhishek Ponia, Abha Askok Talesera, Priyal Jimit Gosalia, Nandita Bhavik Vasa, Jayashree Managal Narayan, Vivek Kastawar
Oct 11, 2021	Seed	\$3.0M	-	-	\$4.9M	-	Angel: Basant Lohia, Disha Jain, Kshitij Bhandarkar, Gagan Jain, Jayashree Managal Narayan

Digital Media Presence:

Facebook	Instagram	Linkedin	X	Youtube	Website tabs	App downloads
----------	-----------	----------	---	---------	--------------	---------------

74k	49.4k	85k	2650	43.5k	<ol style="list-style-type: none"> 1. ALL BIKES 2. ACCESSORIES 3. STORY 4. ASSURANCE 5. CONTACT US 6. FIND STORE 7. BOOK A TEST RIDE 	-
-----	-------	-----	------	-------	---	---

Company report Aurita

Company summary

Incorporation Date: Founded on July 4 2018 in Ahmedabad.

Founder Background:

1.Raghuveer Chadalavada:Co-Founder & CEO:Ex - Nitro Shockwaves, Accelerators. Andhra University BE 2017

2.Abhijit Mane:Co-Founder-iCreate. Shivaji University BE

3.Gaurav Mehrotra:Co-Founder-Prodigy Finance, ex-Digital Vidya, CUPONATION. Moradabad Institute of Technology B.Tech 2011, N ... more

4.Pandey Raghunath:Co-Founder-SRKR Engineering College 2018

5.Satish Gowd:Co-Founder-Ex - Photom Technologies. Bonam Venkata Chelamaiya Engineering College B.Tech 2018

Brand Statement (Tagline):Not specified Tagline.

Mission:"creating sustainable urban mobility"

USPs:

- 1. Ultra Utility Design:** Aurita Bikes feature a zero-step-through unisex frame with reduced frame size and minimum seat height, making them accessible and comfortable for riders of various ages and genders.
- 2. Versatile Cargo Solutions:** Equipped with unique central storage, utility front racks, and rear cargo racks with pannier bags, these e-bikes offer ample space for carrying personal items, groceries, or business-related cargo, enhancing their practicality for daily use.
- 3. Enhanced Comfort with Dual Suspension:** The inclusion of front and dual rear shock absorbers ensures a smooth and comfortable ride across various terrains, allowing for longer journeys without discomfort.

Product Landscape:(Sku analysis)

Feature	Aurita Tempest	Aurita Typhoon	Aurita Trooper	Aurita Tornado
Features	Urban commuter bike, lightweight, easy-to-use	Family-oriented e-bike, larger and more comfortable	Utility cargo e-bike for transporting goods	Multi-utility e-bike for off-road and rough terrain
Body Frame	Step-through, UNI SEX design for easy mounting	Step-through, family-friendly design	Reinforced frame with cargo racks	Step-through, robust frame with added suspension
Price	₹29,999 (discounted from ₹32,999)	₹35,999 (discounted from ₹39,599)	₹34,999 (discounted from ₹38,499)	₹37,999 (discounted from ₹41,800)
Tyres	Standard urban tyres suitable for city roads	Wider tyres for stability and comfort	Heavy-duty tyres for additional load capacity	Thick all-terrain tyres for varied conditions
Battery Range	Approx. 40-50 km on a full charge	Approx. 40-50 km on a full charge	Approx. 40-55 km, optimized for cargo use	Approx. 45-60 km, optimized for off-road travel
Speed	Top speed of around 25-30 km/h	Up to 30 km/h	Up to 25-30 km/h	Top speed of around 30 km/h
Size	16" frame size, fits 4'10" to 6'2" riders	16" frame size, fits 4'10" to 6'2" riders	16" frame size, fits 4'10" to 6'2" riders	16" frame size, adjustable for various riders
Electricity Utility	Pedal assist with 3 levels	3-level pedal assist system	Pedal assist with 3 levels, optimized for heavy lifting	Pedal assist with 3 levels of assistance
Motor Power	250W to 350W	350W motor for better support	350W to 500W to handle heavy loads	350W to 500W for off-road power needs
Weight	Approx. 20-25 kg	22-27 kg	25-30 kg, heavier due to cargo frame	25-30 kg due to suspension and frame reinforcement
Design	Sleek, compact, modern minimalist aesthetic	Simple, family-oriented, practical design	Industrial, functional design for cargo	Rugged, versatile for both city and off-road use
Technology	Pedal assist, electric motor, LCD display (likely)	Pedal assist, motor, likely digital display	Pedal assist, motor support, digital display	Pedal assist, suspension system, likely advanced display
Suspension	Basic front suspension	Front suspension for smoother rides	Front suspension for managing load stress	Full suspension for superior comfort

Carrying Capacity	Suitable for one rider; limited load capacity	Suitable for average loads, one rider	Higher carrying capacity for cargo	Suitable for one rider, moderate load capacity
Battery Placement	Mounted on the frame for stability	Mounted on the frame for balanced weight distribution	Mounted on the frame for even distribution	Mounted on the frame for optimal balance

Traction:

Year	Users and Company Growth	Revenue Growth	Product Development
2018-2019	-	-	Aurita Bikes was founded with a focus on developing electric utility bicycles tailored for the Indian market. CB Insights
2019-2020	-	1.1L	Research and Development: Focused on designing customizable, upgradable, and modular e-bikes with long battery ranges, powerful motors, and additional storage space. CB Insights
2020-2021	-	15.5L	Product Launch: Introduced the Infinity 1.0, India's first utility electric cycle, engineered to make electric cycles a primary mode of transport.
2021-2022	-	27.4L	Product Upgrade: Launched the Infinity 2.0, an upgraded version with improved efficiency and user experience, featuring a near-zero step-through design suitable for riders of varying heights.
2022-23	-	64.1L 134% YOY	Product Expansion: Expanded the product lineup to include models

			like Tempest, Typhoon, Trooper, and Tornado, each catering to diverse mobility needs with features such as full suspension and multi-utility designs.
2023-24	-	145.8L 127% YOY	Future Plans: Preparing to launch Infinity 3.0 and Infinity 4.0, aiming to enhance user experience with larger wheels, zero step-through designs, reduced standover height, and full suspension moped-style electric cycles.

Sales Channels/Gtm/Target customer/Demographic:

Target Customer	Subpoints	Presence	Specific Details
Age range	15-25	<input checked="" type="checkbox"/>	students and young professionals
	25-40	<input checked="" type="checkbox"/>	urban commuters and fitness enthusiasts who value convenience and sustainability in their daily travels.
	40-55	<input checked="" type="checkbox"/>	recreational cycling or adopting healthier lifestyles.
Gender	Male	<input checked="" type="checkbox"/>	Aurita's unisex designs cater to male riders seeking practical and efficient e-bike solutions.
	Female	<input checked="" type="checkbox"/>	The zero-step-through frame is particularly advantageous for female riders, offering ease of use and comfort.
	Others	<input checked="" type="checkbox"/>	Aurita's inclusive design approach ensures accessibility for riders of diverse gender identities.
Geography	Tier I	<input checked="" type="checkbox"/>	<ol style="list-style-type: none"> 1. Chennai 2. Hyderabad 3. Bangalore

			<ul style="list-style-type: none"> 4. Mumbai 5. Pune 6. Headquarter Ahmedabad
	Tier II	<input checked="" type="checkbox"/>	Goa
	Tier III	✗	Not specified
	Tier IV	✗	Not specified
Most selling regions		<input checked="" type="checkbox"/>	Chennai, Hyderabad, Bangalore, Mumbai, Pune, Ahmedabad, and some parts of Goa.
B2B			<ul style="list-style-type: none"> 1. Earthio Sustainable Energy Pvt. Ltd.: Aurita Bikes has collaborated with Earthio Sustainable Energy Pvt. Ltd. to develop and promote electric vehicle solutions tailored for the urban market. Facebook 2. Motovolt has partnered with METRO Cash & Carry India to introduce e-cycles across METRO's wholesale stores nationwide.
	Partnerships	<input checked="" type="checkbox"/>	
	Sales	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> 1. 10 dealerships, which will be increased to 20 touch-points in the coming months. 2. Corporate Fleet Sales 3. Direct Corporate Outreach 4. Trooper Model for Cargo Hauling: Aurita's Trooper e-bike is

			<p>specifically designed for cargo transportation, making it an ideal choice for businesses involved in last-mile deliveries.</p> <p>AURIta Bikes</p> <p>5. Adoption by E-commerce and Logistics Companies:The Trooper model has been adopted by e-commerce giants and logistics firms seeking cost-effective and eco-friendly delivery solutions.</p> <p>EV Mechanica</p>
	Call center support	✗	Not specified
B2C	Online platforms	<input checked="" type="checkbox"/>	Customers can purchase e-bikes directly through Aurita's official website.
	Self-service sales	<input checked="" type="checkbox"/>	Aurita offers door-step delivery across 20,000 pincodes in India, allowing customers to receive their e-bikes conveniently at home. Aurita Bike
	Franchise and subscription	✗	Not specified
	Direct-to-consumer sales	<input checked="" type="checkbox"/>	Own website
D2C	Aggregators	✗	Not specified
	Retail outlets	✗	
	Government collaborations	✗	Not specified
D2G	Partnerships	✗	Not specified
	Strategic alliances	✗	Not specified

HYBRID	Combination approaches (B2B, B2C, D2C)	<input checked="" type="checkbox"/>	yes
	Online platforms	<input checked="" type="checkbox"/>	yes
	Franchise and subscription	<input type="checkbox"/>	no

Funding Trajectory:

1. Under Accelerator:T-hub & ICreate
2. Investor:Icreate but round is undisclosed.

Digital Media Presence:

Facebook	Instagram	Linkedin	X	Youtube	Website tabs	App downloads
290	1339	2k	52	123	HOME ABOUT US SHOP SUPPORT CONTACT US BLOGS	-

Company report Motovolt

Company summary

Incorporation Date: Motovolt Mobility Private Limited was incorporated on December 26, 2019, in Kolkata, West Bengal, India.

Founder Background:

1. **Tushar Choudhary:** Founder-Himadri Speciality Chemical. Harvard Business School

Brand Statement (Tagline): "Own it"

USPs:

1. **Advanced Battery Safety:** Motovolt's electric vehicles are equipped with IP67-rated, AIS 156 certified batteries that are dustproof, waterproof, and fire-resistant, ensuring enhanced safety and durability.
2. **German Engineering for Indian Roads:** Their products incorporate German technology tailored for Indian conditions, offering robust performance and reliability across diverse terrains.
3. **Comprehensive Doorstep Service:** Motovolt provides convenient doorstep service, ensuring maintenance and support are easily accessible to customers, enhancing the overall ownership experience.

Product Landscape:(Sku analysis)

Feature	Hum	Kivo	Kivo Easy	Kivo 24
Features	Multi-purpose, durable for daily commutes and light cargo	Reliable commuter bike, basic connectivity	Cost-effective urban use, simplified design	Accessible for new or younger riders
Body Frame	Sturdy frame with dual-suspension support	Compact, lightweight frame	Simplified compact design	Compact and easy to handle
Price	₹31,349 - ₹46,434	₹31,074 - ₹44,159	₹28,800 - ₹44,159	₹30,574 - ₹44,159
Tyres	Durable medium-sized tyres	Medium tyres for smooth urban roads	Standard city tyres	Smaller tyres for easy maneuverability
Battery Range	Approx. 105 km with pedal assist	Up to 105 km per charge	Up to 105 km with pedal assist	Up to 105 km with pedal assist
Speed	Max 25 km/h	Max 25 km/h	25 km/h	25 km/h
Size	Medium frame	Compact design for easy handling	Compact, designed for quick commutes	Smaller, easy to handle
Electricity Utility	Swappable battery	Removable battery, standard charging	Removable battery, efficient charging	Removable battery
Motor Power	250W motor	250W	250W	250W
Weight	Moderate weight	Lighter frame for easy handling	Lightweight	Lightweight
Design	Functional, suitable for utility with style	Sleek and practical for city commuting	Simple, streamlined for cost-efficiency	User-friendly, accessible design
Technology	App-based connectivity for tracking and maintenance	Basic app integration	Basic connectivity	Simplified app features
Suspensions	Dual suspension system	Minimal suspension	Minimal to none	Basic suspension
Carrying Capacity	Up to 120 kg	100-120 kg	100-120 kg	Approx. 100 kg
Battery Placement	Removable, in-frame battery	Integrated into the frame	Frame-integrated	Integrated into the frame

Traction:

Year	Users and Company Growth	Revenue Growth	Product Development
2019-2020	Its incorporation.	-	Launched its first e-cycles tailored for Indian conditions, emphasizing affordability and functionality. <i>Source: Motovolt Official Website</i>
2020-2021	-	0.1Cr	Introduced improved e-cycle models with extended battery life and integrated smart features for urban mobility. <i>Source: ET Auto</i>
2021-2022	250 exclusive outlets across the country. <i>Source: timesofindia</i>	9Cr	Expanded product range with diverse e-cycle variants to meet various consumer needs. <i>Source: VCCircle</i>
2022-2023	<ol style="list-style-type: none"> 4,000 units sold. Motovolt planned to expand its distribution network from 35 retail stores to over 350 across India. <i>VCCircle</i> 	21.3Cr	Unveiled plans to enter the high-speed electric scooter segment, signaling a strategic move to diversify its product offerings. <i>India TV News</i>
2023-2024	<ol style="list-style-type: none"> Motovolt scooters are available at 105 dealers in 75 cities in India. Sold 20 k units until now 	-	Launched the Motovolt M7 , India's first multi-utility e-scooter (MUSE) equipped with German technology for enhanced safety and performance. <i>Source: eMobility Plus</i>

Sales Channels/Gtm/Target customer/Demographic:

Target Customer	Subpoints	Presence	Specific Details
Age range	15-25	<input checked="" type="checkbox"/>	students and young professionals
	25-40	<input checked="" type="checkbox"/>	urban commuters and fitness enthusiasts
	40-55	<input checked="" type="checkbox"/>	individuals interested in maintaining an active lifestyle

Gender	Male	<input checked="" type="checkbox"/>	Models like the Motovolt M7 offer robust features appealing to male riders.
	Female	<input checked="" type="checkbox"/>	E-bikes with step-through frames and adjustable features cater to female riders.
	Others	<input checked="" type="checkbox"/>	Motovolt's diverse range is designed to be inclusive, accommodating riders of various preferences.
Geography	Tier I	<input checked="" type="checkbox"/>	<ol style="list-style-type: none"> 1. Delhi 2. Mumbai 3. Bangalore 4. Chennai 5. Hyderabad 6. Kolkata Source:Motovolt website
	Tier II	<input checked="" type="checkbox"/>	<ol style="list-style-type: none"> 1. Pune 2. Gurgaon 3. Lucknow 4. Ahmedabad 5. Jaipur 6. Tamilnadu 7. Odisha 8. Bihar 9. Westbengal Source:Motovolt website
	Tier III	<input checked="" type="checkbox"/>	<ol style="list-style-type: none"> 1. Haldwani, Uttarakhand 2. Nandyal, Andhra Pradesh Source:Motovolt website
	Tier IV	<input checked="" type="checkbox"/>	Not specified
	Most selling regions	<input checked="" type="checkbox"/>	Kolkata, Delhi, Mumbai, Bangalore, Hyderabad, Chennai, Pune.
B2B	Partnerships	<input checked="" type="checkbox"/>	<ol style="list-style-type: none"> 1. Swobbee Collaboration: Motovolt has partnered with Swobbee, a German climate-tech firm, to establish 200 battery-swapping stations across India within two years. This initiative aims to enhance the accessibility and affordability of electric two-wheelers. EV Reporter 2. ZEVO Alliance: In June 2024, Motovolt collaborated with ZEVO, a tech-enabled logistics solutions company, to deploy 5,000 M7 e-scooters for urban mobility and last-mile logistics.Economic Times Auto 3. Epsilon Group Partnership: In June 2024, Motovolt collaborated with Epsilon Group to provide sustainable mobility solutions for Epsilon's employees in

			<p>Vijayanagar, Bellary, Karnataka, offering electric bikes at subsidized prices to promote eco-friendly commuting. Epsilon Carbon</p> <p>4. Technical collaboration with German company eROCKIT for the manufacture of e-scooters, priced at Rs 1,22,000.</p>
Sales		<input checked="" type="checkbox"/>	<p>1. Product Customization for B2B Clients: Motovolt offers a range of electric cycles tailored for B2B applications, including models like HUM, KIVO, KIVO EASY, and ICE. These cycles are designed to meet the specific needs of businesses, providing efficient and sustainable transportation solutions. Get Distributors</p> <p>2. Integration with Fleet Management Systems: The company provides a B2B Fleet platform that allows fleet owners to manage their assets through an intuitive dashboard. This system offers features such as vehicle tracking, performance monitoring, and remote locking, enhancing operational efficiency for businesses. Motovolt</p> <p>3. Collaborations with Wholesale Retailers: Motovolt has partnered with METRO Cash & Carry India to introduce e-cycles across METRO's wholesale stores nationwide. This collaboration aims to reach a broader B2B customer base, including small and medium-sized enterprises seeking cost-effective mobility solutions. DriveSpark</p> <p>4. Expansion into Last-Mile Delivery Solutions: The company plans to introduce three-wheeler electric vehicles targeting B2B solutions, particularly in the last-mile delivery segment. This initiative reflects Motovolt's commitment to diversifying its product offerings to meet the evolving needs of businesses. Economic Times Auto</p> <p>5. Dealer Network and Distribution: Motovolt is actively expanding its dealer network to enhance its B2B sales reach. The company offers dealership opportunities with support in sales training, service, and marketing,</p>

Oct 19, 2022	Seed	\$1.9 M	\$11.0 M	\$13.0 M	\$2.1 M	5.6x	WAMI Capital, Sivaswamy Holdings	PPAP	Maeko Kovacevic, Vikas Bagaria, Vikrampati Singhania, Ankur Agarwal, Mitesh Mehta, Kalicharan Agarwalla, Deepak Kumar Gaddhyan, Devanesh Agarwal, Ravi A Shroff, Hrishit Shroff, Amit Dhanuka, Prakash Kejriwal, Raghav Jhavar, Shivam Puri, Nikhil Mehta, Rekha Choudhary	Ahlawat & Associates
--------------	------	---------	----------	----------	---------	------	----------------------------------	------	--	----------------------

Digital Media Presence:

Facebook	Instagram	Linkedin	X	Youtube	Website tabs	App downloads
85k	7294	18k	130	5.32k	shopNEW store locator Book a Test Ride	5k+

Company report Hero lectro

Company summary

Incorporation Date: Hero Lectro was founded in 2020.

Founder Background:

1. **Aditya Munjal:CEO**

Brand Statement (Tagline): "Ride the Change."

Unique Selling Propositions (USPs):

- **Multi-Mode Riding Options:** Hero Lectro e-cycles offer multiple riding modes, including Pedelec (battery-assisted pedaling), Throttle (twist and go), Cruise (consistent speed), and Pedal (manual), providing versatility to suit different riding preferences and conditions.
- **BikeDoctor:** Connect with our Bike Doctors. Schedule an appointment for your e-bike health and maintenance by sharing the required details. Select the date & time slot as per your availability. Our experts will call you within 24 hours of your request, on working days.

- **Detachable Battery System:** Certain models feature a detachable battery, allowing for convenient charging and extended range, making them suitable for long commutes or off-road adventures.

Product Landscape:(Sku analysis)

Feature	H3+	H5+	H7+	F6i	V24
Body Frame	Steel Frame	Steel Frame	Steel Frame	Alloy Frame	Alloy Frame
Price	₹30,999	₹31,999	₹33,499	₹60,999	₹36,499
Tyres	27.5" x 2.4" MTB Pattern	27.5" x 2.4" MTB Pattern	27.5" x 2.4" MTB Pattern	27.5" x 2.0" MTB Pattern	700C City Tyres
Battery Range	Up to 30 km (Pedal Assist)	Up to 30 km (Pedal Assist)	Up to 40 km (Pedal Assist)	Up to 55 km (Pedal Assist)	Up to 40 km (Pedal Assist)
Speed	Up to 25 km/h	Up to 25 km/h	Up to 25 km/h	Up to 25 km/h	Up to 25 km/h
Size	Standard	Standard	Standard	Standard	Standard
Electric Utility	Pedelec, Throttle, Cruise, Pedal	Pedelec, Throttle, Cruise, Pedal	Pedelec, Throttle, Cruise, Pedal	Pedelec, Throttle, Cruise, Pedal	Pedelec, Throttle, Cruise, Pedal
Motor Power	250W BLDC Motor	250W BLDC Motor	250W BLDC Motor	250W BLDC Motor	250W BLDC Motor
Weight	Approximately 25 kg	Approximately 25 kg	Approximately 25 kg	Approximately 25 kg	Approximately 25 kg
Design	MTB Frame	MTB Frame	MTB Frame	MTB Frame	City Frame
Technology	LED Display	LED Display	LED Display	LED Display	LED Display
Suspension	Front Suspension	Front Suspension	Front Suspension	Front Suspension	Rigid Fork
Carrying Capacity	Up to 100 kg	Up to 100 kg	Up to 100 kg	Up to 100 kg	Up to 100 kg
Battery Placement	Internal Battery	Internal Battery	Detachable Battery	Detachable Battery	Detachable Battery

Traction:

Year	Users and Company Growth	Revenue Growth	Product Development
2019-2020	In 2019, Hero Lectro sold around 35,000 e-cycles, commanding	27.9 cr	Launch of New E-Cycle Range: In September 2020, Hero Lectro introduced a new range of electric bicycles targeting commuter, leisure, and fitness segments.

	over 65% of the domestic market share. Business India		These models featured smart functions like Bluetooth connectivity, a top speed of 25 km/h, and a range of 25 km on a single charge. Financial Express
2020-2021	In May 2021, Hero Lectro announced plans to expand its sales channels for e-cargo vehicles across 10 cities, targeting up to 80 multi-brand outlets to strengthen its market presence. Autocar Professional	32.7 cr	Entry into European Market: In June 2021, Hero Cycles launched its first made-in-India electric bike, the Hero Lectro, in Germany, marking its entry into the European e-bike market. GizmoChina
2021-2022	As of March 2022, Hero Lectro held approximately 70% of the Indian e-cycle market, which had sold around 100,000 e-cycles in total. Business Insider Annual Growth Rate (2020-2022): ~41.4%	-	Expanded product lineup with advanced features to enhance user experience.
2022-2023	-	-	<ol style="list-style-type: none"> Introduction of H3 and H5 Models: In October 2022, Hero Lectro expanded its lineup with the launch of the H3 and H5 e-cycles, priced at ₹27,499 and ₹28,499 respectively. These models were powered by GEMTEC and designed to cater to urban commuters seeking cost-effective and eco-friendly mobility solutions.Financial Expr Expansion with C1, C5x, and F1 Variants: Later in 2022, Hero Lectro introduced three new variants—C1, C5x, and F1—priced between ₹32,999 and ₹38,999. These e-cycles featured advanced aluminum alloy frames, enhancing structural strength and corrosion resistance, and were designed for both city commutes and off-road terrains.Financial Express

2023-2024	-	-	<p>Launch of H4 and H7+ Models: In April 2024, Hero Lectro unveiled the H4 and H7+ e-cycles, priced at ₹32,499 and ₹33,499 respectively. These models were tailored for short-distance commutes, offering a maximum speed of 25 km/h and designed to cater to both urban and semi-urban markets.</p> <p>Timeline Daily</p>
-----------	---	---	---

Sales Channels/Gtm/Target customer/Demographic:

Target Customer	Subpoints	Presence	Specific Details
Age range	15-25	<input checked="" type="checkbox"/>	Young adults and students
	25-40	<input checked="" type="checkbox"/>	Urban professionals and commuters
	40-55	<input checked="" type="checkbox"/>	Individuals aiming for a healthier lifestyle through cycling, with the added convenience of electric assistance.
Gender	Male	<input checked="" type="checkbox"/>	Electric cycles are designed to cater to male users for commuting and fitness.
	Female	<input checked="" type="checkbox"/>	Unisex designs make it accessible and comfortable for female riders.
	Others	<input checked="" type="checkbox"/>	Inclusive designs ensure usability for all gender identities.
Geography	Tier I	<input checked="" type="checkbox"/>	Haryana Bangalore Chennai Hyderabad
	Tier II	<input checked="" type="checkbox"/>	Andhra pradesh Bihar Chattisgarh Gujrat Kochi-kerala Indore-MP Jabalpur-MP nagpur maharashtra Kolhapur,amravati-maharashtra Odisha Rajasthan:jodhpur and jaipur Tamilnadu:koimbatore gorakhpur:uttar pradesh
	Tier III	<input checked="" type="checkbox"/>	Suri:West bengal

	Tier IV	✗	Not specified
Most selling regions		✗	Not specified
B2B			<p>Swiggy: In July 2021, Hero Lectro partnered with Swiggy to integrate e-cycles into their delivery fleet, aiming to enhance efficiency and reduce carbon emissions. Economic Times Auto</p> <p>Fast Despatch Logistics: Collaborated to provide e-cycles for last-mile delivery services, focusing on cost-effective and sustainable transportation solutions. HeroElectro</p> <p>Kinisi E-Mobility: Over the past five years, Kinisi E-Mobility has utilized approximately 250 Hero Lectro e-bikes for rental services in Auroville, receiving positive feedback for their reliability and build quality. Hero Cycles</p> <p>Yamaha Motor Co., Ltd. and Mitsui & Co., Ltd.: In September 2019, Hero Cycles launched the Lectro EHX20, India's first center motor e-cycle, as part of a three-way strategic alliance with Yamaha and Mitsui. This collaboration aimed to create technologically superior, high-performance e-cycles for the Indian market. Motown India</p> <p>Mahindra & Mahindra: In January 2022, Hero Electric, a separate entity from Hero Lectro, announced a strategic partnership with Mahindra & Mahindra to cater to the growing demand for electric vehicles in India. As part of this collaboration, Mahindra Group will manufacture Hero Electric's most popular electric bikes – Optima & NYX – at their Pitampur plant. Mahindra</p>
	Partnerships	<input checked="" type="checkbox"/>	

	Sales	<input checked="" type="checkbox"/>	<p>Corporate Partnerships: Collaborations with companies like Swiggy for delivery fleet integration and Kinisi E-Mobility for rental services.</p> <p>Last-Mile Delivery Solutions: Direct sales of e-cycles tailored for logistics and delivery services, targeting companies in e-commerce and food delivery.</p> <p>Bulk Sales: Offering discounted rates for large-scale corporate purchases through programs like Corporate Purchase.</p> <p>Distributors and Dealers: Establishing partnerships with distributors for expanding sales reach across cities.</p>
	Call center support	<input checked="" type="checkbox"/>	<ol style="list-style-type: none"> 1. Customer Service 2. Online Contact Form. 3. Retail Assistance
B2C	Online platforms	<input checked="" type="checkbox"/>	<ol style="list-style-type: none"> 1. Official website 2. Amazon
	Self-service sales	<input checked="" type="checkbox"/>	The website provides virtual assistants and detailed product information, enabling customers to make informed decisions independently. HeroElectro
	Franchise and subscription	✗	Not specified
D2C	Direct-to-consumer sales	<input checked="" type="checkbox"/>	<ol style="list-style-type: none"> 1. Official website 2. Omni-Channel Approach
	Aggregators	<input checked="" type="checkbox"/>	Amazon
	Retail outlets	<input checked="" type="checkbox"/>	80 multi-brand outlets.
D2G	Government collaborations	✗	Not specified
	Partnerships	✗	Not specified
	Strategic alliances	✗	Not specified
HYBRID	Combination approaches (B2B, B2C, D2C)	<input checked="" type="checkbox"/>	yes
	Online platforms	<input checked="" type="checkbox"/>	yes
	Franchise and subscription	✗	no

Funding Trajectory:

Bootstrap

Digital Media Presence:

Facebook	Instagram	Linkedin	X	Youtube	Website tabs	App downloads
150k	42.6k	7.3k	-	14.5k	1. OUR STORY 2. PRODUCTS 3. TRY IT OUT	-

