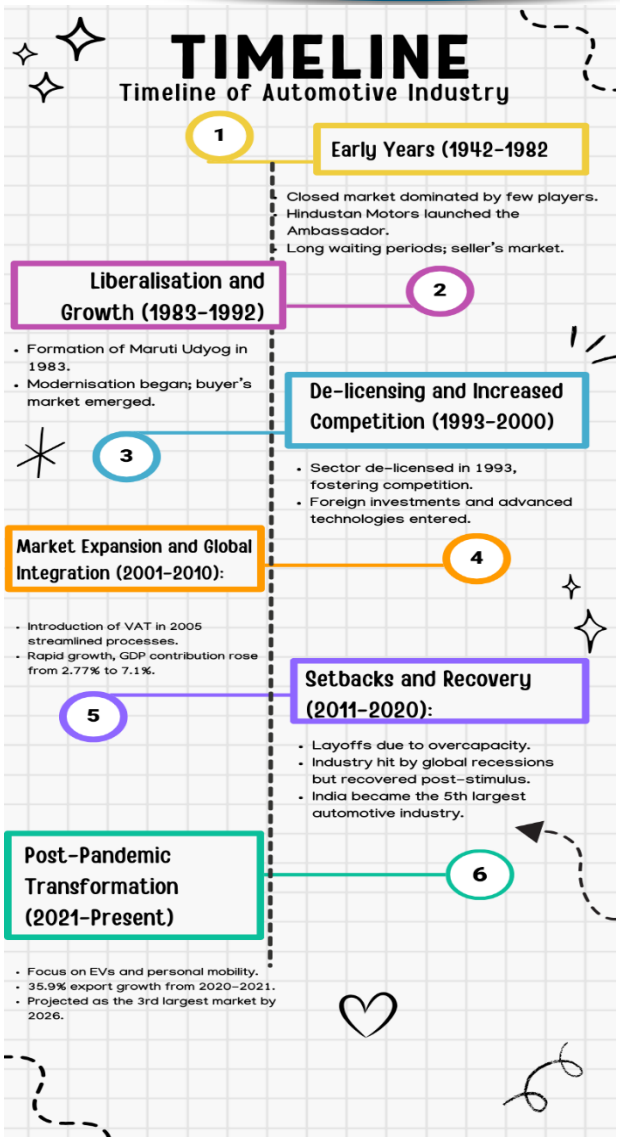
Rising Disposable Income : Driving India's Automotive Demand Surge



Timeline of Automotive Industry from 1942 to Present

• **Early Years (Before 1982):** The market was largely closed, dominated by a few players with outdated models and long waiting periods. It was a seller's market, with limited options and high demand.

• **Liberalisation and Growth (1983-1992):** A significant turning point came with the formation of **Maruti Udyog** in 1983, a joint venture between the Indian government and Suzuki. This marked the beginning of the Indian automotive sector's modernisation, with component manufacturers entering the market through joint ventures. This period saw the start of a transition from a seller's market to a buyer's market.

• **De-licensing and Increased Competition (1993-2000):** In 1993, the sector was de-licensed, opening it up to more competition. Major Original Equipment Manufacturers (OEMs) began assembling vehicles in India, leading to a more competitive landscape. This period also saw increased foreign investment and the introduction of new technologies and models. Imports were permitted from April 20011.

• **Market Expansion and Global Integration (2001-2010):** The introduction of the **value-added tax (VAT) in 2005** further streamlined the market. This era was characterized by rapid growth, with the Indian automobile industry becoming one of the fastest growing in the world. The sector's contribution to the National GDP rose from 2.77% in 1992-93 to about 7.1%. By 2010, the industry experienced a dramatic increase of 25-27% in both sales and production.

• **Setbacks and Recovery (2011-2020):** Following a capacity creation of ₹2200 crore in 2011-12, the industry suffered from excess capacity and suppressed demand, leading to layoffs. The industry experienced an uneven growth trajectory, with a hit in 2007-08 and a recession in the two financial years before 2014-15. **The global recession of 1929** and **World War II** also impacted economies worldwide. However, the sector recovered after stimulus packages were announced. By 2019-20, the Indian automobile industry was the fifth largest in the world. However, the growth rate declined from 2009-10 to 2013-14. The industry faced further challenges, with sales declining due to economic slowdown and the COVID-19 pandemic.

• **Post-Pandemic Transformation (2021-Present):** The industry showed signs of resilience and recovery post-pandemic, with a renewed focus on personal mobility. The push for electric vehicles (EVs) gained momentum with government support and incentives, though internal combustion engines (ICE) vehicles still dominate the market. The industry has experienced notable growth, with exports increasing by 35.9% between 2020-21 and 2021-2219. In 2023-24, the industry contributed 6.8% to GDP and had a turnover of about Rs 20 Lakh Crores (equivalent to USD 240 Billion), with a 12.5% growth in volume terms. India is projected to be the world's third-largest automotive market in terms of volume by 2026. By 2024, the Indian auto market is expected to be worth USD 180 billion.

Industry Overview

The Indian automobile industry has evolved significantly, transitioning from a closed market with limited players to one of the world's largest and fastest growing sectors. **This transformation is marked by the entry of foreign automakers and the establishment of key players like Maruti Suzuki, which has consistently dominated the passenger vehicle segment,** and Hero MotoCorp, which leads the two-wheeler market. In terms of global ranking, India is currently the **third-largest automobile market in terms of sales**. The sector's financial contribution to India's GDP has also grown substantially, rising from 2.77% in 1992-93 to about 7.1% and a **turnover of around ₹20 lakh crore (USD 240 billion) in FY 2023-24**. This represents a major economic impact of approximately 6.8% of the national GDP. The Indian automotive market is expected to reach a value of USD 160 billion by 2027, with a projected **compound annual growth rate (CAGR) of 8.1%**.

In terms of production, the Indian automotive industry manufactured approximately 23.28 million vehicles across segments in FY 2023-24. Two-wheelers constitute the largest share with 17,974,365 units, followed by passenger vehicles at 4,218,746 units, commercial vehicles at 967,878 units, and three-wheelers at 691,749. This high production volume underscores the sector's significant manufacturing capacity and its critical role in meeting domestic and international demand. The export market is also significant, with a **35.9% increase in exports in 2021-22**. In FY24, two-wheeler exports stood at 3,458,416 units. These figures highlight the sector's ability to compete on a global scale.

Segment-wise, the industry is diverse, with **two-wheelers accounting for 75%** of the market share in FY234. Passenger cars, once dominant, now hold a smaller share, while the utility vehicle (UV) and SUV segment is seeing a surge in demand with a **23% growth in volume and 39% in value in FY24**. **Maruti Suzuki has maintained its leadership in the passenger vehicle market**, selling 113,575 units in June 2024, while **Hero MotoCorp leads the two-wheeler segment**4. The commercial vehicle segment is currently facing a slowdown6, while the electric vehicle (EV) segment is experiencing rapid growth and is projected to reach 6.34 million units by 2027. In 2023, India was the third-largest passenger vehicles market with sales of 4.1 million units, holding a global share of 5.19%, only behind China and the USA.

The Indian automotive sector is a **dynamic and evolving industry**, characterized by a segmented market with distinct leaders across two-wheelers, passenger vehicles, commercial vehicles, and emerging electric vehicles (EVs). **Two-wheelers dominate**, holding **75% of the market share in FY23**, followed by passenger vehicles at **18%**. In June 2024, **Hero MotoCorp** led the two-

wheeler segment with **397,029 units sold**, capturing a **28.86% market share**. **Maruti Suzuki** led passenger vehicles with **113,575 units sold**, while **Tata Motors** dominated the commercial vehicle segment with **25,919 units sold**, commanding a **35.63% market share**. These figures highlight the entrenched dominance of legacy players within their respective categories, even as the competitive landscape shifts with the **rise of EVs** and **premium products**.

Traditional business models in the sector are undergoing transformation. **Established manufacturers** like Maruti Suzuki, Hero MotoCorp, and Tata Motors predominantly operate through **franchise-based dealership networks**. However, the **EV segment** is driving a shift toward more **integrated models**, with new players bypassing traditional dealerships and focusing on **direct-to-consumer strategies**, including **home delivery and servicing**. **Bajaj Auto**, which has seen a robust recovery post-COVID, exemplifies this evolution by leveraging **premiumization trends**, achieving a **17% CAGR in domestic two-wheeler volumes from FY22-24**, gaining market share in the **>125cc motorcycle segment**, and capitalizing on the value migration to **CNG** in the three-wheeler segment.

HHI Index Analysis

S.No.	Name	Mar Cap Rs.Cr.	% of share	Squared
1	Maruti Suzuki	378632.6	20%	396
2	M & M	359069.7	19%	356
3	Tata Motors	285175.9	15%	225
4	Bajaj Auto	238574.1	13%	157
5	Hyundai Motor	144488.2	8%	58
6	Eicher Motors	137496.6	7%	52
7	TVS Motor Co.	108970.6	6%	33
8	Hero MotoCorp	81864.78	4%	19
9	Ashok Leyland	61420.19	3%	10
10	Escorts Kubota	40015.77	2%	4
11	Others	67285.88	4%	13
	Total	**1902994**	**100%**	**1,322.13**

The Herfindahl-Hirschman Index (HHI) is calculated by squaring each firm's market share and adding the results together.

The scale represents 0-1500 Low Concentration, 1500-2500 Moderate Concentration & 2500- 10,000 High Concentration.

The Indian Automotive Industries is in near 1300 which means it enjoying the low Concentrations in the market.

Source – Screener & Finblage Research

Competitive positioning

The key players can be better understood through **SWOT and PEST analyses**. **Maruti Suzuki's strengths** lie in its **leadership in the small car segment** and **robust distribution network** but face threats from increasing competition in the premium and EV spaces. **Tata Motors**, leveraging the **EV revolution**, aims to secure leadership in this emerging category but must navigate **high investment costs** and potential **regulatory shifts**. **Hero MotoCorp**, while dominant in traditional two-wheelers, is challenged by **shifting consumer preferences** and the transition to **electric mobility**. **Bajaj Auto** is bolstering its market positioning by expanding into **new product segments**, particularly EVs and CNG vehicles.

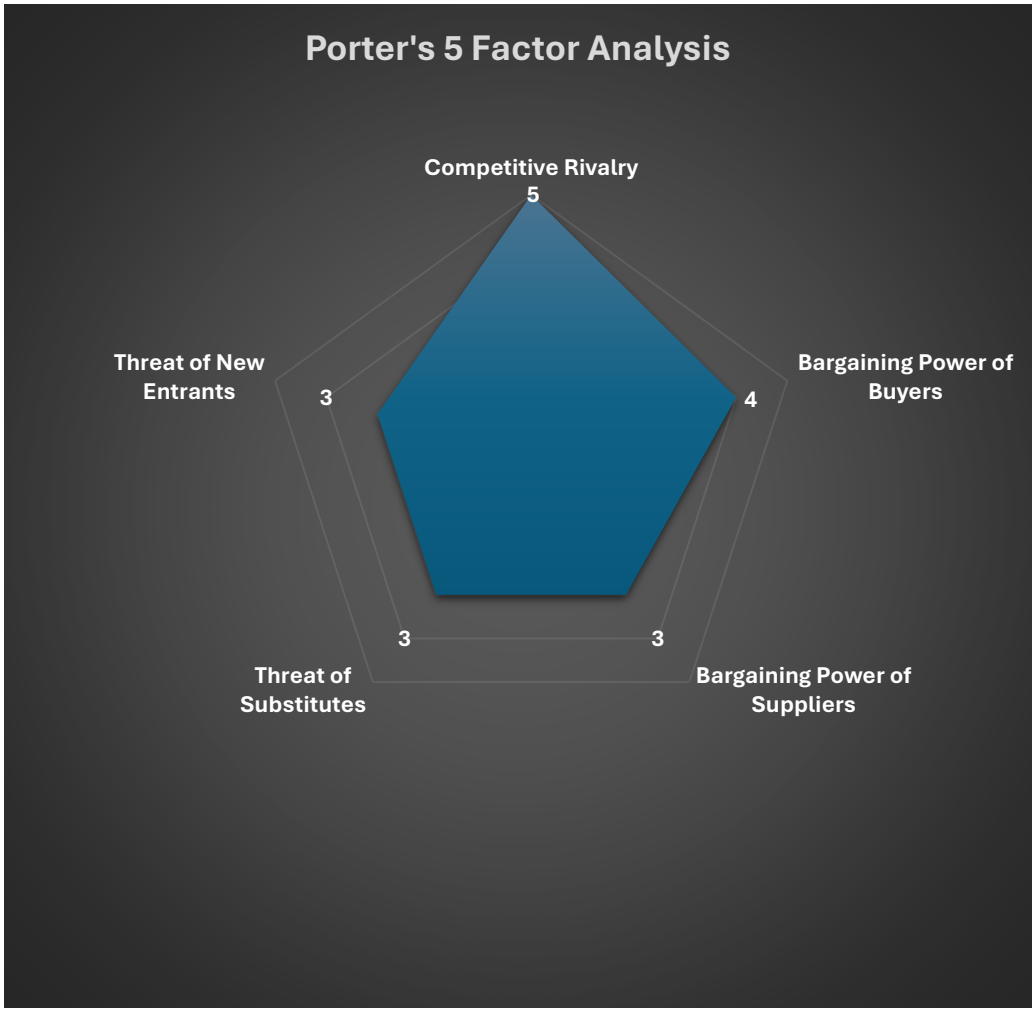
PEST analysis reveals that the automotive sector is shaped by several key factors. **Politically**, government incentives and subsidies for EVs are accelerating adoption. **Economically**, rising incomes are enabling premiumization. **Socially**, changing consumer preferences are driving demand for technologically advanced vehicles, including EVs and premium models. **Technologically**, investments in EV infrastructure and advancements in battery technologies are reshaping the competitive landscape. For example, **Hyundai's indigenously manufactured Absorbent Glass Mat (AGM) batteries** for its vehicles reflect a significant technological advancement, offering **superior durability and performance** over traditional batteries.

Recent **investments and developments** underscore the sector's commitment to innovation and growth. **Toyota** has invested **INR 3,300 crore** to expand its manufacturing in Karnataka, while **Musashi Seimitsu Industries** has committed **INR 700 million** to its Indian facilities. **Maruti Suzuki's launch of the Invicto**, a premium three-row vehicle, signifies its foray into higher-end markets. In the EV segment, **Mahindra & Mahindra** is preparing to launch **e-SUVs starting December 2024** and has ambitious plans to grow its subsidiaries by **5x in five years**. **Tata Motors** is eyeing significant expansion in the passenger vehicle market by **FY30**, driven by **mid-sized SUV launches**. The industry is also witnessing the rise of **new players in the e-bus segment** and innovative business models like **myTVS's quick-commerce initiative**, which targets delivering auto parts within **two hours** to retailers via Hypermart dark stores.

Despite the overall momentum, **challenges persist**. According to **Vahan data**, December 2024 saw a **19% YoY decline** in overall vehicle registrations, with **two-wheelers declining by 24%**. However, **EVs and CNG vehicles outperformed**, highlighting the consumer shift toward **sustainable and economical alternatives**. Players like **TVS Motors**, despite their fragmented portfolios, are seeing **rich valuations** but face risks of losing market share due to **EV disruptions**. The competitive and evolving nature of

the Indian automotive sector, driven by **consumer shifts**, **technological advancements**, and **strategic investments**, continues to redefine the industry landscape, presenting both **opportunities and challenges** for incumbents and new entrants alike.

The Indian automotive industry is currently undergoing a significant transformation, characterised by both established dominance and disruptive innovation. **Key players like Maruti Suzuki, Hero MotoCorp, and Tata Motors** maintain considerable market share in their respective segments, leveraging established distribution networks and manufacturing capabilities. However, the landscape is being reshaped by the **rise of electric vehicles (EVs)**, which present a dual challenge and opportunity. The traditional **franchise-based business model** is being challenged by **direct-to-consumer EV brands** that use digital platforms and home delivery, as seen with certain EV manufacturers. This shift towards more **integrated models** is essential for companies aiming to control both manufacturing and distribution.

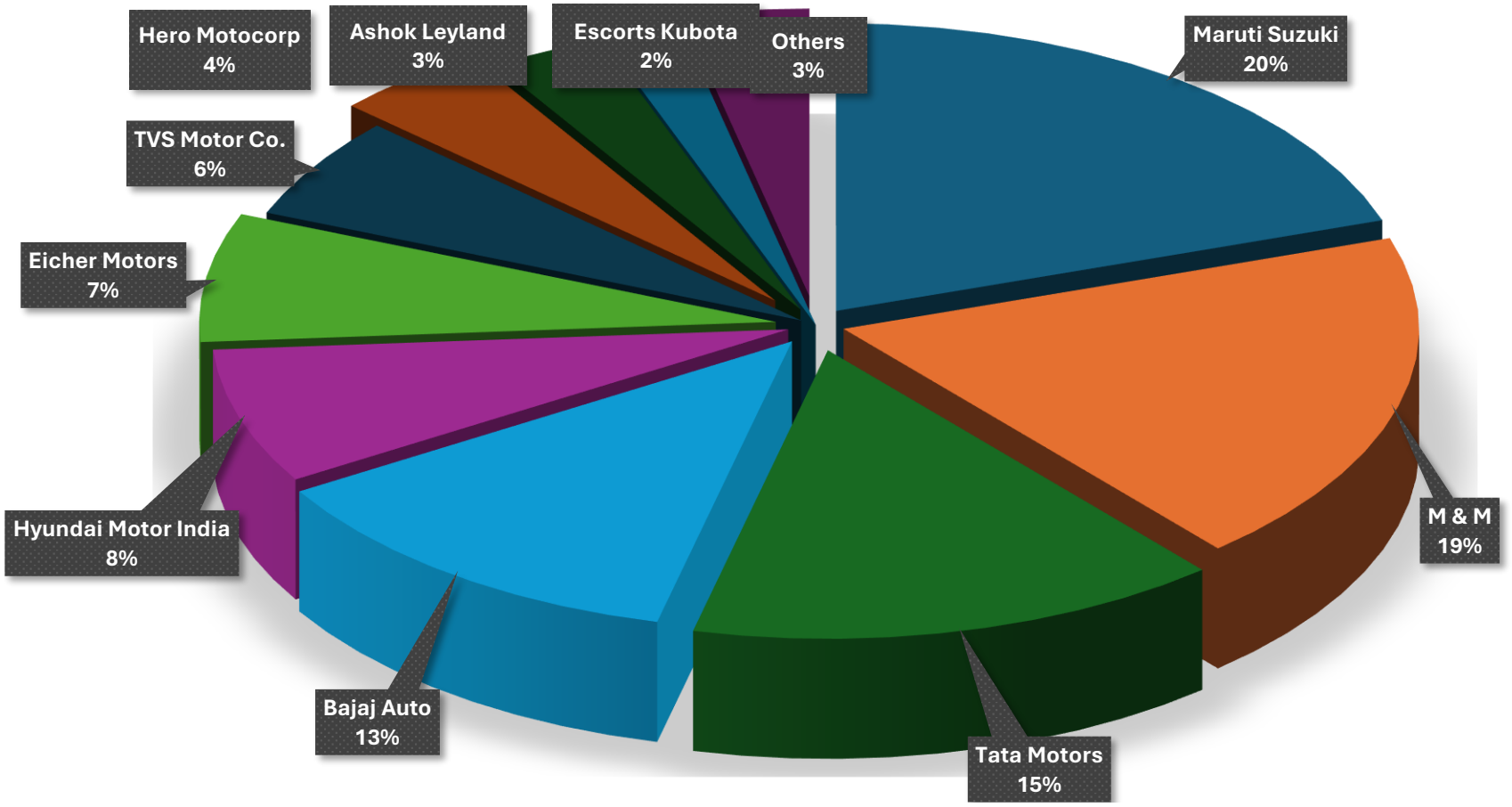


The competitive rivalry is high, with established manufacturers investing in EV technologies to compete with new entrants and each other. This competitive intensity is further fuelled by the **high bargaining power of buyers** who have numerous options and price sensitivity. The **bargaining power of suppliers also plays a crucial role**, especially those with raw materials and proprietary technologies, although initiatives such as "Atmanirbhar Bharat" are aimed at reducing reliance on global suppliers. **The threat of substitute products is also increasing** with the rise of ride-sharing services, public transport and electric vehicles. Furthermore, the industry is heavily influenced by various external factors. **Government policies and incentives for EVs**, economic indicators like **income growth**, and social trends like **premiumisation**, all impact the dynamics of this sector.

Source: Finblage Research

Automotive Market Share in India

Additionally, companies like **Bajaj Auto**. are successfully adapting by focusing on premiumisation and CNG options. **The long-term growth of the sector is projected to be around 6-10%** depending on the segment, driven by factors such as **increasing exports** due to low-cost manufacturing and R&D capabilities and an expected increase in per capita income. Furthermore, **mergers and acquisitions**, along with recent partnerships such as that between **TVS Mobility and Mitsubishi Corporation**, and investments like those from**Toyota** and **Musashi Seimitsu** indicate that there is a continuous evolution within the industry, which is being driven by the need for innovation and expansion.



Source: NSE & Finblage Research

Value Chain Analysis

• **Design and Conceptualization:** This initial stage is primarily driven by **automakers (OEMs)**, who are responsible for the **creative process of designing new vehicles**. This phase is crucial as it involves significant value addition through engineering and innovation. OEMs decide on the vehicle's specifications, features, and overall design. This is where the initial concept of the vehicle is developed and brought to life1. The design process may also involve considerations for new technologies and evolving consumer preferences. The design stage is often conducted at the headquarters of multinational corporations or their subsidiaries, particularly for premium segment vehicles.

Major Players: Tata Motors, Mahindra & Mahindra, Maruti Suzuki, Hero MotoCorp, Bajaj Auto.

• **Raw Material Sourcing: R**aw materials are fundamental to the automotive industry, serving as the base for all production processes. They are the essential inputs, such as steel, aluminium, and rubber, whose availability and cost directly affect overall production expenses, impacting vehicle pricing and profitability. Reliance on these materials makes the industry vulnerable to supply chain disruptions caused by geopolitical tensions, leading to price increases. However, effective management of raw material supply chains provides a competitive advantage, allowing companies to maintain stable supplies and cost competitiveness

Major Players: Tata Steel, JSW Steel, MRF, and global suppliers.

• **Component Manufacturing:** This stage involves the production of various **auto parts and components** that are essential for vehicle assembly. The auto component industry consists of a mix of organised and unorganised players. It includes **various tiers of suppliers**, ranging from those that import raw materials like steel, aluminium and plastics to those that source materials locally. Tier 1 suppliers work directly with OEMs and are typically large domestic suppliers and MNCs. Tier 2 and Tier 3 firms form a diverse group of manufacturers, with many smaller firms often employing an informal workforce. The **auto component sector** is critical to the overall growth of the automotive industry. In 2018, OEM supplies constituted 55.97% of the total turnover of the auto component industry.

Major Players: Bosch, Bharat Forge, Motherson Sumi, and Valeo.

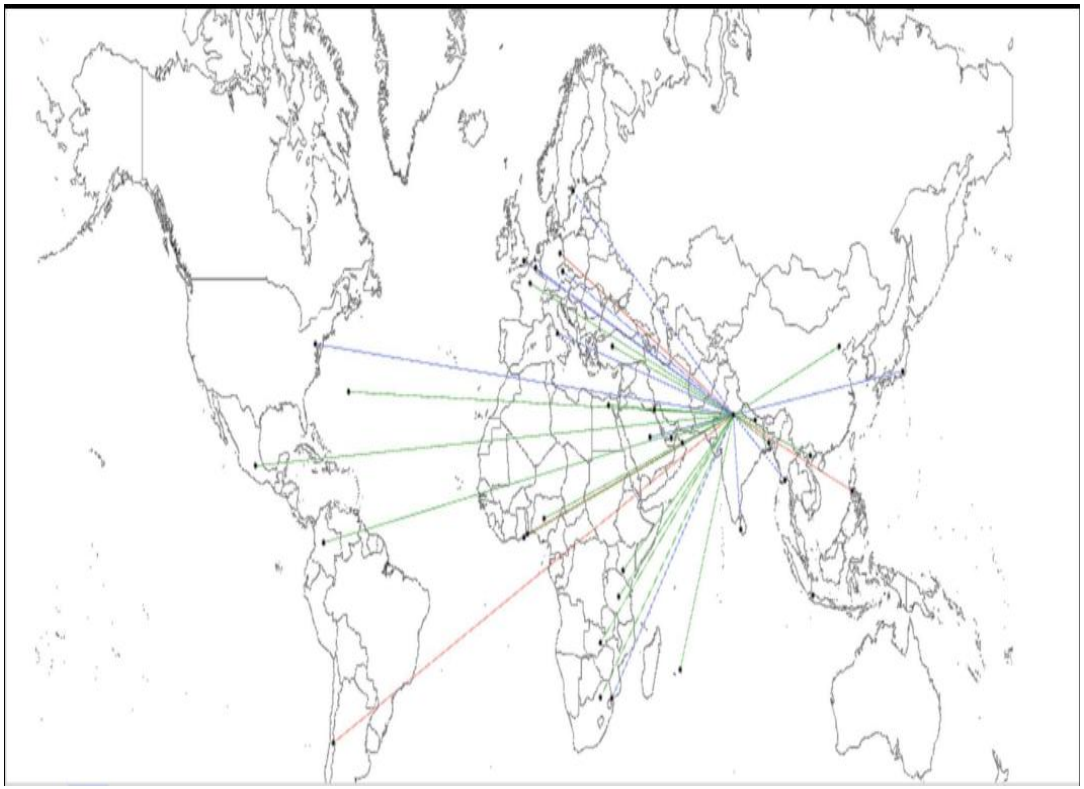
• **Vehicle Assembly:** In this phase, **OEMs bring together the manufactured components** to assemble the final vehicle. This involves integrating various parts and subsystems into a complete product. The vehicle assembly is performed by the OEMs using components supplied to them by the auto component industry. This stage requires significant logistical coordination and quality control to ensure vehicles are assembled according to specifications.

• **Distribution and Sales:** Once the vehicles are assembled, they are channelled through a variety of distribution networks. This stage involves a range of players including dealerships, retailers, and increasingly, direct-to-customer digital platforms. Dealerships have traditionally been the primary point of sale for vehicles. However, **digital channels are gaining popularity**. Automakers must develop direct-to-customer options to cater to the preferences of modern consumers. These direct sales options can enable better customer experiences, improve access to information, and reduce costs by eliminating intermediaries.

• **Aftermarket Services:** The aftermarket is a critical stage of the value chain and comprises a variety of services, including maintenance and repairs. It includes service providers, garages, auto parts retailers and suppliers, insurance companies and other support functions such as financing. It also includes the resale of used vehicles and the sale of personalized accessories. The aftermarket is a significant contributor to the overall automotive industry revenue. On average, the upfront cost of a vehicle accounts for only 20-25 percent of the lifetime ownership costs; aftermarket services constitute a major portion of those costs. OEMs and other players are exploring opportunities to expand into the downstream value chain by offering services such as finance and insurance.

• **Recycling & End-of-Life Management:** This stage addresses what happens to a vehicle at the end of its operational life. It is becoming an increasingly important element of the value chain due to growing environmental concerns. This phase includes the **recycling and disposal of vehicles and their components**. It involves materials groups who are playing an increasingly central role in the sector. New recycling technologies for end-of-life vehicles are being introduced. The importance of resource efficiency, waste reduction and sustainable practices to foster a circular economy is being recognised

Destinations of India's Domestic Value Added in the Automotive Sector



The network analysis of the exports of value added by India reveals some interesting insights into the locational diffusion of India's DVA –

- The US had the highest out-degree centrality score indicating the high volume of trade that both nations had in the auto sector. It was followed closely by Germany.
- Asian giants, China, Japan, and Thailand followed their western counterparts next with high scores of out-degree centrality.
- In terms of relative importance (as indicated by the eigen-vector centrality score), the US, Germany and Italy were the top-most valuable partners. This was reflective of the high volume of trade as well as high dollar value worth of trade these nations enjoy with India.
- The Asian region came next in terms of significance with China, UAE and Thailand emerging as the most preferred collaborators. These nations were important not only because they had direct trade linkages with Indian firms but were also important hubs for the auto sector of other nations.
- Surprisingly, Brazil had quite a high out-degree score as well as eigen-vector centrality score indicating Indian firms had strong linkages with their Brazilian counterpart. Though the country did not feature as a top destination in the gross value-added terms, it was certainly a vital central hub for India's exports of DVA.

Source: *IIM Bangalore Research Paper No. 627*

How CRM helps in Automotive Industry?

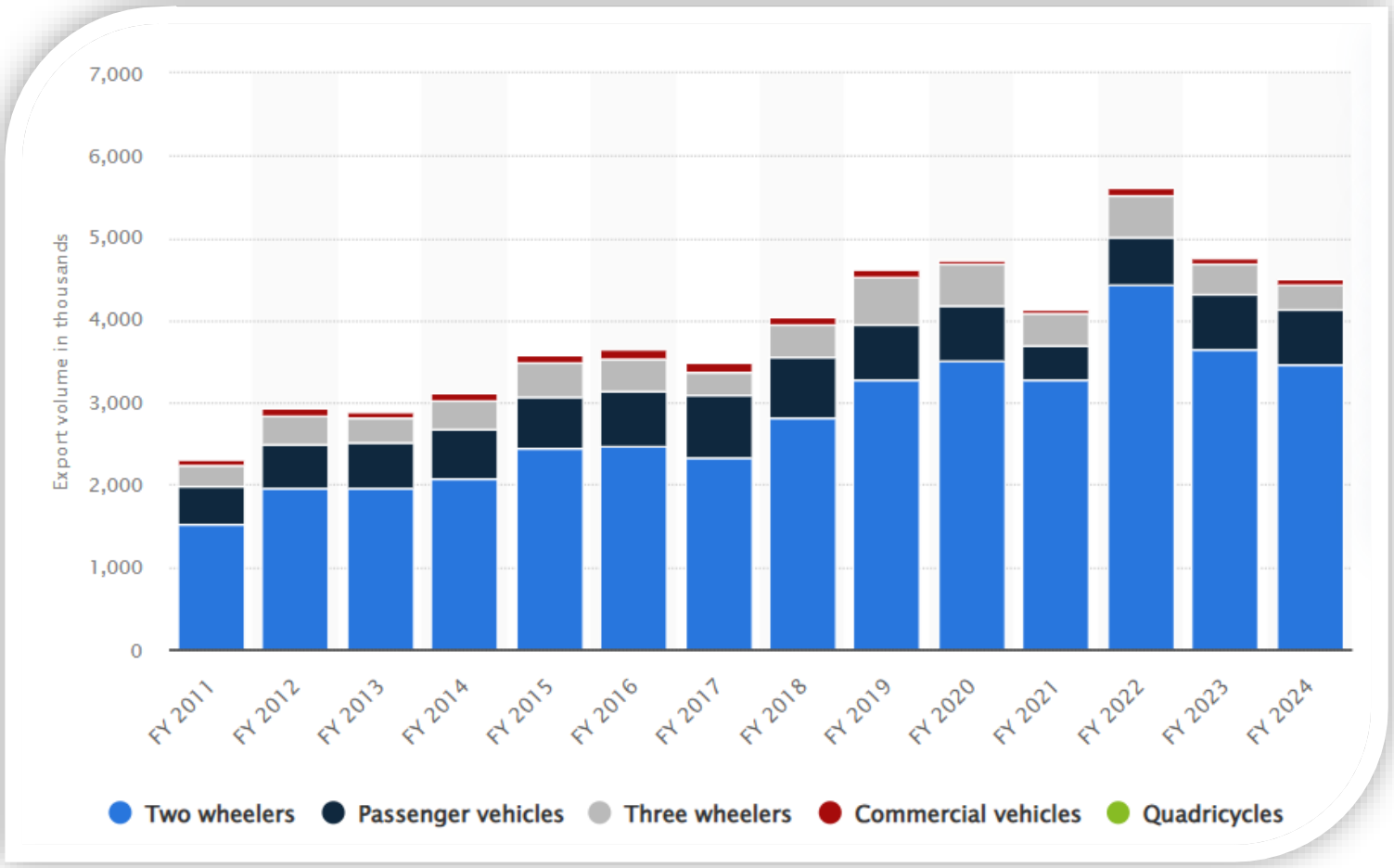
CRM systems play a transformative role in the automobile industry by addressing critical challenges and optimizing operations across the customer lifecycle. They streamline **lead management** by automating lead capture, scoring, and nurturing, ensuring sales teams focus on high-potential prospects. CRM enables **customer segmentation**, allowing companies to design targeted marketing campaigns and offer personalized experiences based on demographics, preferences, or behavior. Through a 360-degree customer view, CRM enhances **customer retention** by tracking interactions across touchpoints, identifying potential issues, and proactively addressing them to reduce churn.

Post-sale operations are also improved, as CRM systems help manage **after-sales services** efficiently by tracking service requests and complaints, improving customer satisfaction through real-time updates. For dealerships, CRM optimizes **dealer management** by providing performance insights and access to customer data, fostering better service and customer relations. Advanced **data analytics** capabilities allow businesses to uncover trends, track KPIs, and make data-driven decisions.

Moreover, CRM systems aid in **supply chain management** by offering real-time visibility into inventory and delivery schedules, which helps reduce costs and enhance delivery times. They improve **social media engagement** by monitoring conversations and sentiment to strengthen customer relationships and brand reputation. CRM also supports **predictive maintenance** by analyzing vehicle data to forecast potential issues, reducing warranty costs and improving customer satisfaction. Enhanced **mobile capabilities** further elevate the customer experience by offering conveniences like appointment scheduling and vehicle tracking via apps.

CRM systems integrate seamlessly with other platforms, centralizing data and enabling **self-service options** such as online payments and bookings. They also assist with **product recalls** by efficiently managing affected customer notifications, ensuring safety and maintaining brand integrity. By fostering **collaboration across departments**, CRM unifies customer data, enhancing operational efficiency. Tools like Salesforce's Sales Cloud, Service Cloud, Marketing Cloud, and Einstein Analytics demonstrate how CRM systems can provide actionable insights and enable businesses to adapt to changing customer expectations, driving growth and innovation in the competitive automobile industry.

Trend Analysis of Indian Automotive Exports (FY 2011–FY 2024)



The chart showcases the export volume of Indian automotive vehicles across various segments, including two-wheelers, passenger vehicles, three-wheelers, commercial vehicles, and quadricycles, from FY 2011 to FY 2024. Two-wheelers dominate the export market, with consistent growth, peaking at around 6,000 thousand units in FY 2022. Passenger vehicles and three-wheelers also demonstrate moderate growth, contributing significantly to the total exports. Notable fluctuations occur in FY 2020 and FY 2021, likely due to pandemic-related disruptions, with exports recovering strongly in subsequent years. Commercial vehicles and quadricycles account for a smaller portion but show a steady increase over time. The overall trend reflects a robust expansion in India's automotive exports, driven primarily by two-wheelers.

Source : Statista & Finblage Research

Comparable Analysis

As of 20, Jan 2024

S.No.	Name	CMP Rs.	OPM %	ROIC %	Debt To Profit	IV Rs.	EV / EBITDA	P/E	CMP / Sales	PEG	CMP / OCF	ROE %	Cash Cycle	Inventory Days	Mar Cap Rs.Cr.
1	**Maruti Suzuki**	12020.05	13.61	65.97	0.01	7702.24	15.21	27	2.61	1.52	22.49	16.84	-30.88	19.46	378632.59
2	**M & M**	2888.1	18.65	24.58	9.52	1242.46	15.03	30.26	2.46	1.8	63.79	18.39	-11.31	81.15	359069.71
3	**Tata Motors**	774.35	13.75	28.08	3.35	685.03	5.39	8.52	0.65	0.09	4.2	49.44	-47.68	63.95	285175.91
4	**Bajaj Auto**	8544.4	18.7	472.12	0.68	3890.67	22.69	32.37	4.88	3.03	36.39	26.48	-27.85	19.33	238574.12
5	**Hyundai Motor**	1782.45	13.09	59.01	0.18	-	13.16	24.28	2.11	1.34	15.89	39.58	-15.78	23.46	144488.16
6	**Eicher Motors**	5016.75	26.17	117.67	0.1	2630.76	22.21	32.21	8.04	2.54	36.93	24.23	-19.38	57.23	137496.6
7	**TVS Motor Co.**	2292.95	14.38	15.68	8.22	583.28	19.8	57.75	2.6	3.16	86.96	26.55	-48.5	33.63	108970.61
8	**Hero MotoCorp**	4092.1	13.87	68.31	0.16	2282.82	12.66	19.86	2.04	8.31	16.62	21.95	-29.93	25.12	81864.78
9	**Ashok Leyland**	209.22	18.2	19.8	16.43	73.51	11.76	23.79	1.32	5.89	-9.82	28.35	-3.77	50.05	61420.19
10	**Escorts Kubota**	3575.4	12.39	27.74	0.1	1305.15	23.57	34.44	4.11	2.02	38.76	12	49.01	73.04	40015.77

Source – Screener

Performance Metrics Analysis

1. Operational Profitability

- **Eicher Motors** stands out with the highest OPM (26.17%), suggesting strong operational efficiency, while **Escorts Kubota** reports the lowest (12.39%). This indicates a disparity in cost management and operational control among these companies.

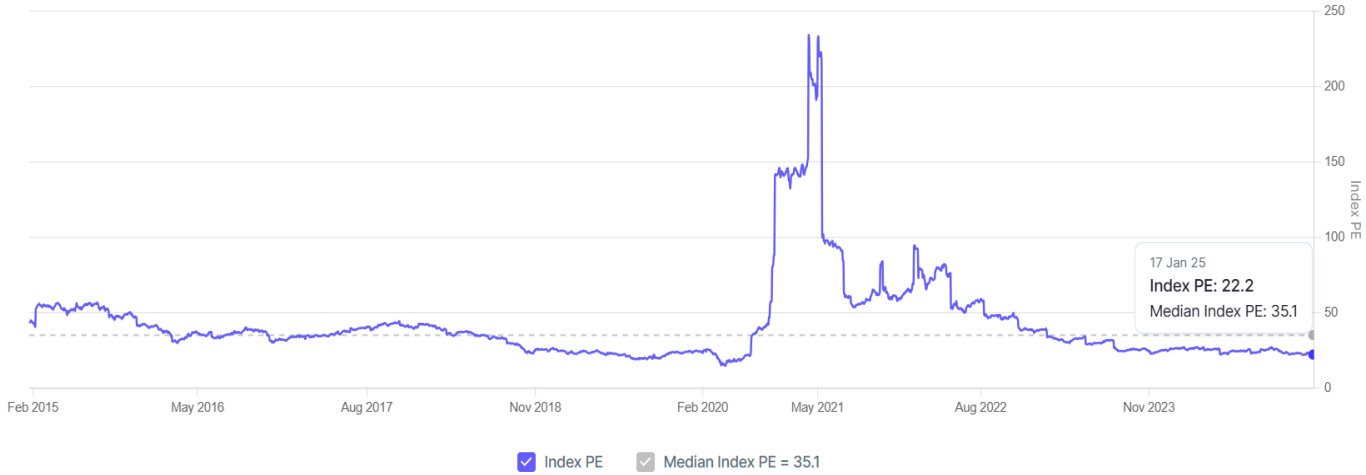
2. Return on Invested Capital (ROIC)

- **Bajaj Auto** exhibits an extraordinary ROIC of 472.12%, far surpassing its peers. This suggests exceptional capital utilization efficiency. Other strong performers include **Maruti Suzuki** (65.97%) and **Hero Motocorp** (68.31%). In contrast, companies like **TVS Motor Co.** (15.68%) lag behind, indicating a need for more effective capital allocation.

4. Debt to Profit Ratio

- Companies such as **Maruti Suzuki**, **Hero Motocorp**, and **Eicher Motors** maintain a very low debt-to-profit ratio, reflecting financial prudence and lower dependency on debt. Conversely, **Ashok Leyland** (16.43) and **TVS Motor Co.** (8.22) reveal higher debt burdens relative to profits, which could pose risks in adverse economic conditions.

5. Valuation Metrics



- **Tata Motors** offers an attractive valuation with the lowest EV/EBITDA (5.39) and P/E ratio (8.52), indicating potential undervaluation. On the other hand, **TVS Motor Co.** has the highest P/E (57.75), which may suggest overvaluation or high growth expectations.

The overall sector looks fairly to undervalued as Nifty auto index trading at a PE of 22 below its 10 year Historical median PE of 35.

7. Cash Flow Management

- **Maruti Suzuki** and **Eicher Motors** report positive CMP/OCF (22.49 and 36.93, respectively), indicating robust cash flow generation. On the other hand, **TVS Motor Co.** (-86.96) and **Ashok Leyland** (-9.82) exhibit negative cash flow metrics, signaling potential liquidity concerns.

8. Return on Equity (ROE)

- **Tata Motors** leads the pack with an ROE of 49.44%, showcasing exceptional shareholder returns. Companies like **Hero Motocorp** (21.95%) and **Bajaj Auto** (26.48%) also demonstrate strong equity efficiency.

9. Inventory and Cash Cycle Management

- The data reveals significant differences in inventory days and cash cycle efficiency. **Ashok Leyland** and **M&M** report longer cash cycles, reflecting higher working capital requirements, while **Maruti Suzuki** and **Bajaj Auto** maintain shorter cycles, indicating better operational efficiency.

Key Risk

1. **Competitive Risks:** The automotive sector is characterised by **intense competition** among numerous players, which can lead to price wars and reduced profit margins1. This makes it difficult for companies, particularly new entrants, to gain market share and maintain profitability.

- A large number of manufacturers compete for sales. This leads to a challenging market environment where companies need to differentiate themselves through innovative products, cost efficiencies, or strong branding to succeed.
- The competitive intensity is also high as original equipment manufacturers (OEMs) have many suppliers from which to source components

2. **Various regulatory changes** are impacting the sector, including st`ricter emission norms, which are pushing companies to adopt cleaner technologies. The Society of Indian Automobile Manufacturers (SIAM) plays a key role in policy formulation and data dissemination. SIAM is also exploring the possibility of collating and structurally reporting vehicle registration data from the Vahan portal which will give an indication of retail sales. Data from the Vahan dashboard also highlights EV sales across the country by vehicle category, state, year and month. There's a growing emphasis on sustainability, with companies focusing on environmental, social, and governance (ESG) disclosures. The industry is exploring alternative fuels like biofuels and hydrogen, aligning with the government's vision for a low emission future.

   SIAM is actively promoting the xEV revolution while also advocating for support and incentives. The push for gas-based mobility via Compressed Biogas (CBG) is also being explored as an alternative, in addition to the focus on EVs.

3. **Macroeconomic Risks:**

- **Economic downturns**, recessions, and high unemployment rates can significantly reduce consumer demand for vehicles, impacting sales volumes and revenue2. As the industry is cyclical, it is linked to the economic cycle and changes in discretionary consumption.
- **Fluctuations in fuel prices** are a major concern, influencing consumer purchase decisions and impacting the sales of vehicles, particularly in the consumer segment2. Higher fuel costs can deter consumers from purchasing new vehicles or influence their choice towards more fuel-efficient or electric options.

4. **Supply Chain Risks:**

- The automotive industry is vulnerable to **supply chain disruptions**. These disruptions can result from various factors, such as geopolitical tensions, trade disputes, and global conflicts. **Raw material price volatility** poses a significant risk.

- The cost of materials like steel, lead, copper, aluminium, rubber, and polymers are key factors influencing production costs. Increases in these costs can squeeze profit margins.
- A disruption in the supply of key components, such as semiconductors, can halt production and lead to significant financial losses

5. **Operational Risks:** The industry requires skilled professionals, particularly in areas such as IT, data analytics, and AI. The sector may face challenges in **talent acquisition**. **Counterfeiting of auto components** is a significant risk that can affect safety, performance, and brand reputation6. This can also have implications for consumer trust and overall industry integrity. The need for **robust cybersecurity** is also increasing, as modern vehicles become more connected, and software driven. Protecting vehicles and infrastructure from cyber threats is an important operational challenge.

6. **Technological Risks:** The rapid transition to **electric vehicles (EVs)** presents a significant risk to established manufacturers of internal combustion engine (ICE) vehicles. Faster adoption of EVs in segments like two-wheelers and light commercial vehicles could reduce demand for traditional vehicles. The availability and cost of **raw materials** essential for EV batteries, such as lithium, are a concern. The industry is seeking ways to reduce reliance on such materials and to achieve localization of battery component production to reduce supply chain risk. Companies must innovate and adapt to emerging technologies, including electric and hybrid vehicles, and those that do not, face the risk of falling behind in the market

Disclaimer

This article is prepared for informational purposes only and is based on various publicly available sources, including reports and data from the Society of Indian Automobile Manufacturers (SIAM), VAHAN portal, the Ministry of Heavy Industries, Motilal Oswal, IPE research papers, IIM research studies, CRISIL Research, and other reputable publications. While every effort has been made to ensure accuracy and reliability, the information provided should not be considered as financial, investment, or professional advice.

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