

Sum of all parts: India's component industry thinks ahead

Latest ACMA-McKinsey study on the domestic component industry is a comprehensive analysis of past, present and key ongoing trends that heavily impact the sector. It also makes recommendations to the supplier community to pave the way for a progressive future. **Amit Panday** reveals the details.

The level of importance and support of the automotive component sector to the domestic automobile industry is well documented. In FY2018, suppliers or the component industry reported a turnover of Rs 345,635 crore, marking 18.3 percent YoY growth and a CAGR of about 10 percent over the last five years. The industry contributes 2.3 percent to India's GDP and accounts for a four percent share in total exports.

The industry, which provides 3,000,000 direct and indirect jobs in the domestic market, is a net importer as its imports exceed its exports. According to data released by ACMA, while total auto component exports stood at Rs 90,571 crore (up 24 percent YoY), total imports were recorded at Rs 106,672 crore (17.8 percent YoY). Although exports grew at a faster rate than imports last fiscal, it is difficult to forecast when the industry will become a net exporter. The main reason for this can be attributed to the anticipated import content that will be procured, at least initially, to adhere to the incoming regulatory norms.

At its 58th annual session in early September 2018,

IMAGE: SKODA AUTO



ACMA has released a detailed study compiled by global management consulting firm McKinsey & Company. The study lists all the incoming trends that will impact the auto and auto ancillary sectors in the foreseeable future. It also issued a few interesting recommendations for the ancillary units to pay attention to in order to sail through the future.

According to ACMA, engine components (26%) followed by body and chassis (17%) and suspension and braking (14%) are the top three domains that together contribute to about 57 percent of all automotive parts produced in India.

The study says, "India's consuming class is expected to expand from 27 million households in 2014 to 89 million households by 2025. The auto industry is expected to flourish with the burgeoning consumer class investing in better vehicles across segments to serve the rising mobility needs."

According to the Automotive Mission Plan 2026, India's auto industry

should triple in size by then. This forecast also has a direct binding on the ancillary business. At present, the Indian auto industry leads the world in the manufacture of two-wheelers, segment-A cars (affordable hatchbacks) and tractors. These three starkly different categories are common when it comes to the requirement of low-cost components with fundamental applications.

India is also home to some of the most complex development centres in the area of frugal and scalable engineering, set up by multinational vehicle and component makers.

Delhi-NCR-Uttarakhand in the north, Pune-Nasik-Aurangabad in the west and Chennai-Hosur-Bangalore in the south are the three large existing auto belts. While these three large auto clusters continue to serve the all-India demands of the OEMs, two more are visibly coming up to accommodate the ever-expanding market and the growing industrialisation – Sanand in Gujarat, and Sri City and the Anantapur region in Andhra Pradesh.

The ACMA-McKinsey study categorises multiple trends in four broad themes that are expected to change the future of the auto and auto ancillary industry.

These are:

- Constantly shifting market dynamics
- Evolving OEM needs
- Evolving new tech, departure from old tech
- Evolving regulatory framework and trade ecosystem

FAST-SHIFTING MARKET DYNAMICS

The extensive study lists seven driving factors that are consistently contributing to the shifting dynamics of the automotive industry worldwide. These are Make in India, traceability and zero defects, the rise of the east in the global economy, market volatility, upward integration of component suppliers in the value chain, evolving adjacent industries and consolidation.

Make in India: The industry has complemented the government's push of positioning India as a manufacturing hub globally. According to the study, top-selling passenger vehicles including SUVs, premium sedans and commercial vehicles have already

achieved localisation of 85 percent or more in India. The latest vehicle manufacturers to either set up fresh operations or expand their footprint in India include Kia Motors, Peugeot, MG Motor, Volkswagen, Skoda, Fiat Chrysler and others in the PV segment.

Among the premium two-wheeler companies looking to expand their presence in India are Triumph Motorcycles and KTM (via alliance with Bajaj Auto), BMW Motorrad (via TVS Motor), Harley-Davidson, Norton, Kawasaki, Yamaha, Suzuki Motorcycles and others. Honda, Japan's largest two-wheeler company, is looking at India as its largest manufacturing hub globally. Honda is the arch rival to India's own Hero MotoCorp, which claims to be the world's largest two-wheeler manufacturer.

The rise of the east: Asia arguably is the most-sought-after continent driving the world economy. "A majority of global manufacturers are already increasing their capacity to meet growing demand in these markets, with major OEMs choosing to set up most of their new plants in Asia. In 2017, 40 of the top 100 global auto suppliers were from Asia, a number that has constantly been on the rise," the industry study quotes.

Traceability and zero defects: The study quotes SIAM's estimation of total 2.2 million vehicle recalls during the 2012-2016 period. Increasing vehicle recalls suggest a growing trend of implementation of quality checks and renewed focus on following best practices in manufacturing. Automakers are increasingly deploying a zero-defect policy to mitigate losses arising from vehicle recalls. "The OEMs are also encouraging component manufacturers who do well on the zero-defect parameter and penalising those who do not," says the industry study.

MULTIPLE TRENDS IMPACT INDUSTRY, CREATE OPPORTUNITIES

Constantly shifting market dynamics		Changing OEM needs	Technological improvements & discontinuities	Evolving regulatory & trade environment
Make in India, for India and the world	The rise of the East	Changing pockets of growth	ACES gathering momentum	Emissions – BS-VI, EV, methanol, CNG, fuel cells
Traceability and zero defects	Volatility and forecastability	Platform consolidation	Industry 4.0	Safety – Braking, cabin, roll over protection
Auto component manufacturers integrating up the value chain	Evolving adjacent industries in India	Shorter product lifecycle	Advanced materials	Scrappage – Lead use, reverse value chain
		Rise of electronics	Rise of new challengers from unrelated sectors	Dynamic global trade policies
		Tier 1 rationalization		
Consolidation in the global industry		Tier 2 and 3 quality	Mobility as a service	

The interplay of these four trends could give rise to attractive opportunities for component makers.

HIGH TIER 1 LOCALISATION LEVELS ACROSS VEHICLE SEGMENTS

Vehicle category	Average localization in top selling models ¹	Details
Hatchbacks, compact sedans/SUVs	90–95%	<ul style="list-style-type: none"> Segment leaders have achieved 95% localization Foreign OEM launches also securing as high as 98% localization
Premium sedans	85–90%	<ul style="list-style-type: none"> Even smaller players have increased localization levels from ~70% to > 80% in the past ~5 years and intend to increase to ~90% in the next ~5 years
Commercial vehicles	>90%	<ul style="list-style-type: none"> Home grown leaders have localization well above 90% Premium offerings have also increased their localization from ~80% to >90% in 2015
2-wheelers	>90%	<ul style="list-style-type: none"> Market leaders have started developing bikes which are 100% indigenous Mass foreign players have also surpassed 90% localization
Tractors	>95%	<ul style="list-style-type: none"> Cost-sensitive segment dominated by Indian players who have localization levels close to 100%

Even premium sedans have a localisation level of 85 percent or more, due to cut-throat competition.

Fast-increasing electronic content per vehicle is possibly the biggest pain point of the Indian auto ancillary industry. According to the study, electronic imports address around 65-70 percent of OEM demand in India.

Traceability, on the other hand, plays a crucial role in tracing the source of flaws up till the part-specific production and the batch numbers. To keep track of vast records, OEMs as well as suppliers are deploying real time parts management system. Best practices are also gaining importance in the wake of India's upgrade to global standards in the areas of emissions and safety.

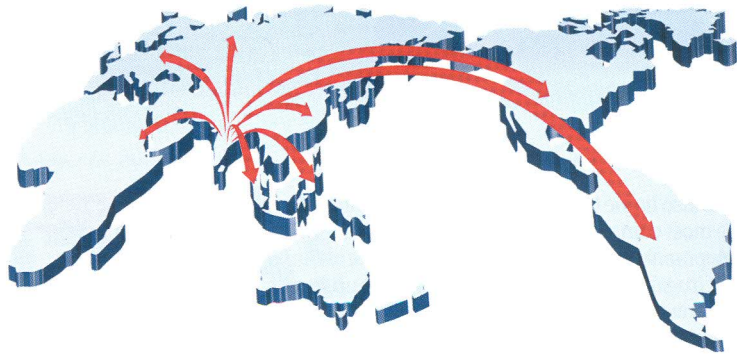
Suppliers integrating up the value chain: Tier 1 suppliers are fast moving up the value chain by graduating from the role of supplying parts to becoming

system integrators for the OEMs. Meanwhile, Tier 2 vendors are also understood to be following suite. Technology disruptions such as electric mobility, computing platform for self-driven vehicles, connected infotainment ecosystem and others are driving this visible shift.

Consolidation in the global industry: With the advent of fast evolving technologies, capital-intensive R&D-driven approach, small suppliers are increasingly struggling to survive. They are either teaming up with other companies or are merging

ADVIK

On The Road To Global Success With Automotive Components



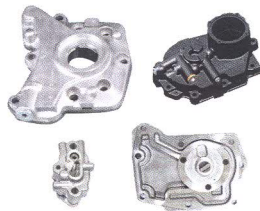
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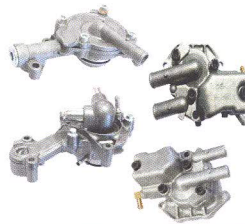
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Oil Pump - 2 Wheeler



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DeCompression Unit & Starter Reduction Gear



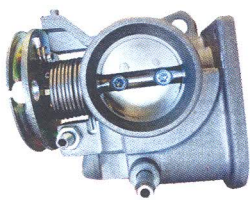
Fuel Cock



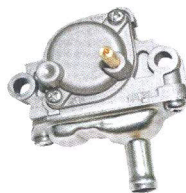
Drum Gear Shift



Combined Brake System



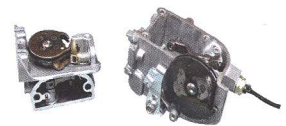
Throttle Body Assembly



Secondary Air Injection / Air Secondary Valve (Mechanical & Solenoid Type)



Purge Valve (Mechanical & Solenoid - ON/OFF & Duty Cycle Type)



Gear Shifter Assembly

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Corporate Off : Solitaire World, 6th Floor, Opposite Supreme HQ, Mumbai - Bengaluru Highway, Baner, Pune - 411 045, India.

Phone : +91 20 67113434 | **Email :** info@advik.co.in | maneesh.satarkar@advik.co.in

into bigger corporations. According to the study, the number of suppliers in India reduced from nearly 30,000 in the early 1990s to about 3,000-3,500 in 2014. In 2017 alone, the industry witnessed 13 mergers and acquisitions.

CHANGING OEM NEEDS

Dynamic consumer expectations are forcing automakers to become increasingly agile and address market needs in time. This, in turn, is putting pressure on component suppliers. Changing OEM needs are characterised by six parameters: changing consumer preferences to premium vehicles, platform consolidation by OEMs, shorter product lifecycle, rise of electronics, Tier 1 rationalisation and Tier 2 and 3 quality.

Changing consumer preferences to premium vehicles:

The study rightly points out that while the traditional vehicle segments will continue to sell at their steady pace, much of the growth is expected to come from premium vehicles with bigger engines. The rise of SUVs and midsize motorcycles are two clear examples of this market trend.

In the M&HCV segment, the study quotes SIAM and underlines the greatest growth in sales of vehicles above 31 tonnes.

Platform consolidation:

The study quotes IHS Markit by underlining the trend that marks the rise of modular platforms among the carmakers. While vehicle production volumes have been rising across the spectrum, the number of vehicle platforms has fallen for most OEMs.

"On an average, the volume per platform has gone up by 44 percent over the five-year period," it quotes. It is understood that platform sharing offers bigger volumes

and hence more scope for negotiation within the value chain. This aspect has also immensely impacted the competitiveness (in terms of strategies around product segments and relative pricing) and vice-versa.

Shorter product lifecycle:

With fast changing customer preferences, product lifecycles have sharply declined. It can be seen that vehicle makers roll out variants of a new product within 12 months of its launch. "The number of new model launches in India's PV market stood at 18 in 2008 and 40 in 2018. Similarly, two-wheeler manufacturers are planning to launch about 50 vehicles in FY2018-19," is detailed in the ACMA-McKinsey report.

Rise of electronics:

Increasing electronic content per vehicle is possibly the biggest pain point of the Indian auto ancillary industry. According to the study, imports address around 65-70 percent of OEM demand in India.

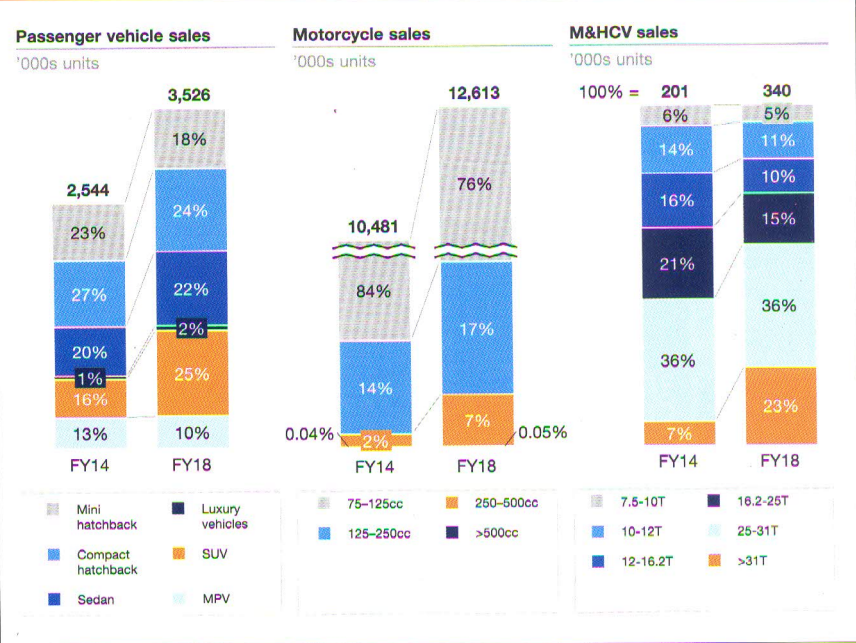
"By 2030, automotive electronics content is expected to contribute nearly 45 percent of total automobile cost in India." Technological disruptions and tightening regulations are the major contributory factors to this trend.

TECH IMPROVEMENTS AND DISCONTINUITIES

New technology megatrends are disrupting the automotive industry worldwide like never before. These new-age technologies such as autonomous cars, connectivity, electrification and shared mobility, namely ACES forces, are gathering momentum.

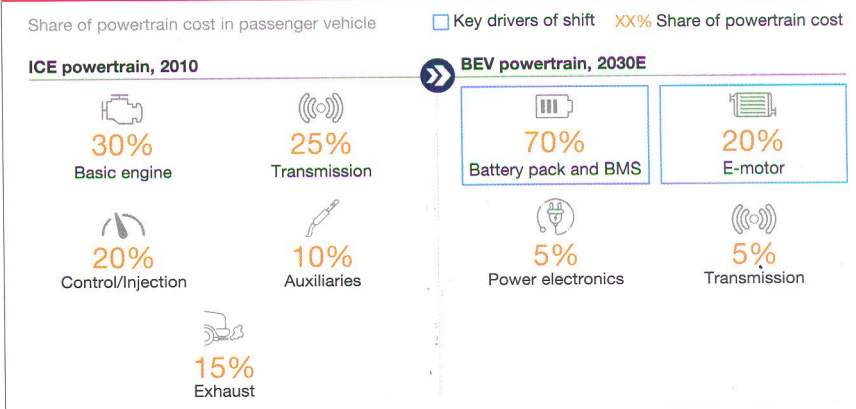
According to the report, India currently has more than 51 start-ups working on innovative tech in the auto industry. Industry 4.0 is another revolution, which is redefining the development and manufacturing processes.

DEMAND SHIFTING TO PREMIUM, HIGHER-CAPACITY VEHICLES



Share of SUVs in the PV segment and 250-500cc motorcycles has increased in the past four years.

THE VALUE-ADD COMPOSITION OF VEHICLES COULD CHANGE



Megatrends like ADAS, EVs, connectivity and shared mobility will alter the existing value chain format.

The automotive value chain is also under severe pressure to explore advanced materials to cut down vehicle weight and also save costs.

"Innovation of processes, digital manufacturing and automated distribution could disrupt the industrial value chain and drive companies to rethink the way they do business," suggests the comprehensive report.

The automotive value chain is also under severe pressure to explore advanced materials to cut down vehicle weight and also save costs. Some of the new-age materials that are increasingly used by automakers include high-strength steel (HSS), aluminium, magnesium,

carbon fibre and different forms of polymers. Weight reduction is also a primary focus area while developing electric vehicles because it directly reduces the consumption of power from the battery to move the vehicle.

There are new players from unrelated sectors who are increasingly making an impact. According to the McKinsey Center for Future Mobility, around 95 percent of disclosed investments in companies focusing on disruptive technologies stemming from non-automotive players.

EVOLVING REGULATORY AND TRADE ENVIRONMENT

The mandatory shift to BS VI emission norms by 2020 has put forth several challenges for the automotive value chain while offering a global export opportunity. The government's push for stricter norms around safety, emissions, drive for EVs and bio-fuels is already putting tremendous pressure on the domestic supplier community, which has always followed a build-to-print model dictated by the OEMs. However, thanks to the regulatory changes, the value chain is beginning to witness an R&D-driven approach in the development of new products of the future.

The vehicle scrappage policy, which is currently being drafted, is also expected to drive demand for new vehicles in the market. Other factors in this category include global trade policies such as free trade agreement (FTA), tariff and non-tariff protection and others.

OPPORTUNITIES AHEAD AND FOCUS AREAS

The study points out that the Indian auto parts industry has more than tripled in under a decade with exports, at about Rs 91,000 crore, contributing more than 26 percent in FY2018. USA and Europe account for the major share of exports of the Indian auto ancillary industry, suggesting its growing capabilities in the area of quality parameters.

"However, India still has an only 3 percent share of the US\$ 1,690 billion global industry today," quotes the report, which has laid down 10 opportunity areas for suppliers to look at. These are:

- Pursue export opportunities aggressively.
- Enhance import substitution.
- Offer premium features at Indian costs more than ever before.

- Focus on component categories that will contribute more to vehicle costs in the future.
- Expand aftermarket offerings to serve existing vehicle parc and aftermarket exports.
- Offer innovative and disruptive tech for future vehicles.
- Offer new features that will fit incoming trends such as shared mobility.
- Develop data-enabled services and solutions.
- Form partnerships and ecosystems to create value for consumers.
- Diversify to adjacent or associated industries.

HOW SUPPLIERS COULD CAPTURE NEW OPPORTUNITIES

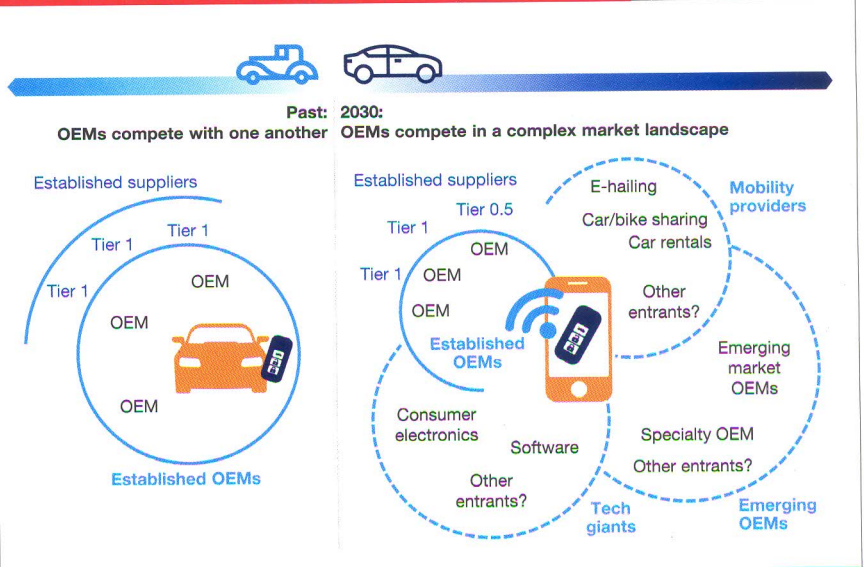
The ACMA-McKinsey study recommends four overarching focus areas that could help domestic suppliers to move towards rapid growth and global recognition. These are:

Strategise to win: The report suggests that existing organisations may look at mergers or acquisitions (M&As) to gain access to new technologies or new markets. It says that suppliers must set up dedicated teams to carefully identify and study potential M&As and associated risks before rushing into them. The companies must also govern performance via thorough strategy execution reviews and also specify and commit to export and aftermarket targets.

Revamp leadership and talent: The companies preparing for the future are suggested to identify and develop next-gen leaders early on while actively developing the core skills necessary. Building best-in-class management practices and local teams globally are other key steps, as recommended.

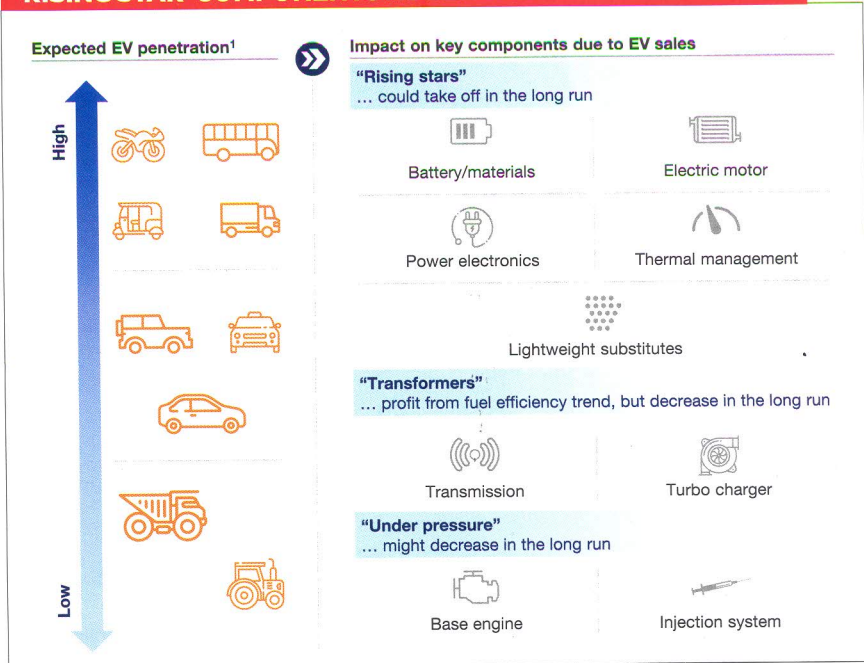
Reset culture and mindset: Adapting to shifting market

THE AUTOMOTIVE MARKETPLACE IS CHANGING



As processes and revenue sources change, industry could see new challengers from unrelated sectors.

'RISING STAR' COMPONENTS AS BENEFICIARIES OF EV SALES



By 2030, EVs could penetrate at least 25% across public buses, two- and three-wheelers, and LCVs.

While India's auto parts industry has more than tripled in under a decade, it has an only 3 percent share of the \$1,690 billion global industry. Clearly, there's huge scope for future growth.

dynamics includes an agile approach at work, a start-up mindset, embracing risks, innovating at a rapid pace, institutionalising flexibility, implementing a partnership-operating model and other factors.

Achieve operational excellence: "Auto parts suppliers will need to embed excellence across their operations, ranging

from supply-chain to data-infrastructure and product development efforts," points out the study.

All in all, the ACMA-McKinsey study provides a thorough analysis of the incoming trends and their potential impact on the value chain. It makes suggestions to how component suppliers as benefit from incoming opportunities stemming from global megatrends. ■