

AUTO TECH REVIEW

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“ADVENT OF ELECTRIC VEHICLES TO SIGNIFICANTLY BOOST LED ADOPTION”

The LED lighting market is expected to get a major boost with the growth of electric vehicles by 2020 and one company, which intends to reap early benefits and further strengthen its dominance as a result of this, is Lumax Industries. Auto Tech Review spoke to **Deepak Jain, Managing Director, Lumax Industries**, to understand the nuances of this fast-evolving technology and how the Indian automobile industry will see a paradigm shift in the years to come.

With over 21 years of experience, Deepak Jain currently serves as the Managing Director of Lumax Industries. He is a business graduate from Illinois Institute of Technology, USA with specialisation in Operations Management & International Business. He has undergone extensive training at Stanley Co Limited, USA & Stanley Electric Co Limited, Japan. He currently holds the position of Chairman of ACMA's Northern Region. Earlier, he was the chairman of

ACMA's HR/IR & Skill Development Committee, as well as the past chairman of ACMA's Sustainable Technology Development Committee. He also served as the National Coordinator of Young Business Leader Forum of ACMA and is the past President of Supplier's Club, Honda Cars India Limited. He is a member of the Young President Organisation and Entrepreneurs' Organisation and the Vice President of Toyota Kirloskar Supplier's Association.

ATR _ Could you brief us about the current automotive lighting market in India?

DEEPAK JAIN _ The Indian automotive industry is likely to grow phenomenally in the coming few years. In the last decade, we have grown immensely due to several factors that include rise in disposable incomes and lower manufacturing costs. If we have a close look at the current industry trends, the sales of passenger and commercial vehicles accelerated in November, which is a good sign for this fiscal. The industry is likely to grow by 8-10 % for the entire fiscal year and should be its best performance in the last six years. India's automobile industry grew by 6.81 % in 2016-17, 3.78 % in 2015-16, 7.06 % in 2014-15, 3.54 % in 2013-14 and 2.49 % in 2012-13. This is directly linked to the demand of lighting solutions from the customers.

Therefore, being the market leaders in manufacturing automotive lighting in India, we believe that the Indian automotive sector will be growing rapidly in the coming years and is currently on the path of recovery from the subdued growth due to implementation of GST in the first quarter. For us, revenues stood at ` 380 cr for Q2 FY18 against ` 304 cr (net of excise duty) in the same quarter last year, recording a growth of 25 % year-on-year. The increase is due to volume increase and value addition of modern technology lighting components. With a strong order book, we are confident of growth in the coming quarters and believe that the new products would be the key growth drivers.

The second quarter results for major players in the industry are already out in the public domain and suggest much higher revenues in Q3 and Q4. The robust demand for the two-wheelers and the passenger vehicle segments has sustained on the back of good monsoons resulting in improved rural demand, festive season starting September onwards and low vehicle finance rates. Improving macroeconomic factors has also helped the CV segment to recover.

Apart from that, the ramp-up of capacities by Indian OEMs and enthusiasm of international OEMs to make India the global manufacturing hub is likely to benefit the auto ancillary industry as a whole. Overall, the sector is currently placed at a sweet spot as macroeconomic factors and consumer sentiments continue to remain

in our favour.

How is the market for LEDs evolving and what are the various advancements witnessed over the years?

Technological advancement and increasing integration of lighting products into vehicle styling is providing great opportunity to Indian manufacturers. Lumax is embedding latest technology in automotive lighting. Fast replacing the traditional incandescent and halogen lamps, LED lighting is gathering momentum. Among the various advancements witnessed over the years, LED lights are not only more energy-efficient, but are far more durable. LED lighting solutions offer an unprecedented level of design versatility that is essential for manufacturers, allowing the OEMs to differentiate their vehicles from their competitors. We also see the manufacturing processes getting streamlined with the increasing demand and economies of scale.

Currently, LED lighting system forms about 25 % of our revenue and we expect to see an exponential growth in its demand in the coming years. Even in the two-wheeler segment, the prospects seem to be great. The current demand is driven by the focus of OEMs on lesser energy consumption and improved aesthetics. We believe the regulation on AHO on the two-wheelers would definitely boost adoption of LEDs because of safety standards.

Our newly inaugurated plant at San-

and, Gujarat, which is our ninth lighting manufacturing facility in India with an initial capacity of 300,000 car-sets annually, would cater more to the LED requirements of OEMs. From this plant, we expect 70 % revenue to be from LED and rest from conventional lighting sources.

Conventional technology has been in India for the past 15 years now and currently we can observe rapid adoption of LEDs. We expect the share of LED-based product to rise to 40-50 % of our total revenues by 2020. Currently, the market is less than 5 % for LEDs in India. However, going forward it will move from 5 % to 30 % in two-wheelers and to 25 % in four-wheelers by 2020. EVs will also boost adoption of LEDs rapidly. Globally, the LED pricing is coming down and after 2020, the entire market may look to adopt the same.

What are the various R&D initiatives undertaken by Lumax in the lighting domain?

Significant amount of innovation and R&D is undertaken to ensure that we stay ahead of market and are able to offer the most suitable products at best cost to our customers.

We are the preferred supplier to most OEMs for lighting and enjoy a leadership position in lighting, and our R&D efforts are a step towards maintaining this position. Automotive lighting has undergone a transformation in the last few years from



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a functional product to a styling highlight across vehicle segments. We have a high focus on the aesthetics as lighting can be considered as an embellishment for any vehicle. It remains a key characteristic for OEMs as lighting offers product differentiation and appeal to customers.

There is also a technological shift happening towards LED, which means better preparedness at our end to ensure that we are able to cater to the requirements of the customers. For example, in the passenger vehicle segment in Q2 FY18, Mahindra launched the KUV equipped with headlamps and SRL lamps from Lumax. Recently, HMSI launched the Grazia scooter, which has LED headlamp manufactured by Lumax.

A lot of our R&D focus has been on complying with the safety norms. Nowadays, all two-wheelers are sold with the AHO feature. At the same time, focus is on lesser energy consumption and improved aesthetic for LED lamps as demanded by the OEMs. However, we have never compromised on the quality of the products that we manufacture. Recently, our Bawal and Haridwar plants participated for the first time in the International Convention on Quality Control Circles held in Philippines and both the plants won gold awards. Cost control programmes and enhancing operating efficiencies are top priorities at Lumax, apart from TPM.

We do not plan to have a centralised R&D, as we have multiple partners and product lines. The technology resides with the separate entities, and depending upon

the longevity of the partnership, along with the customer requirements, a clear plan is drawn to have self-reliant technology. R&D is a function of innovation and economies of scale, which justify the continuous investments and the Indian market today is successfully doing just that.

How does Lumax intend to continue its leadership position with the likely advent of EVs in the market?

The advent of EVs will boost adoption of LEDs and thereby boost the margins of the company in the coming years. Our aim is to take advantage of this technology transition. It is for sure that this transition would be in a phased manner and Lumax would be looking closely into the bottlenecks. We know LEDs are energy-efficient and reduce the load on the engines. In terms of efficiency, LEDs will be 5-10 times more efficient, especially in EVs. Usually, a typical halogen headlight uses 55 W of power to produce 350 lm (lumens) of light, whereas LED-headlight system uses only about 17 W. Even tail lamps or rear lamps, along with interior lighting, are being developed by using LEDs.

Through our partnership with Stanley, Japan, the only global auto lighting company to manufacture LEDs worldwide, Lumax is at a vantage point in bringing to the market, lamps developed using LED technology. Our focus is currently on affordable LED lighting for mass market vehicles and we are planning to localise as much as possible going forward.

Lumax intends to continue providing highest level of technology, benchmarking

processes to international standards and undertake designing, prototyping and product development. In order to maintain leadership position, our plants are putting in enormous efforts each day to achieve 'zero defect, zero effect', product innovations and filing patents to maintain competitive edge over others. Hence, with these indigenous operations, we will keep introducing new technology in India and enable OEMs to optimise costs and get faster delivery of products.

What is your vision for 2030 and beyond for the automotive industry?

I recently met Prime Minister Narendra Modi along with few other business leaders and young entrepreneurs for a discussion on how to transform India through G2B partnership. I feel there is a strong push from the Government of India to make the country a global manufacturing hub through its flagship initiative 'Make in India'. Lumax would definitely like to play a key role in making India the global automotive manufacturing hub. Today, we have huge investments being made by global OEMs in India as they are aware of the demographic advantage that India has. Hence, the industry should grow, considering both domestic and international economic situation is improving.

Increase in disposable incomes will lead to higher demand from the consumers in the coming years. Keeping in mind the positive outlook, I think it's not about 2020 or 2030, rather about how well the automotive industry, including the component manufacturers, suppliers, vendors, etc create employment opportunities and contribute significantly towards the overall socio-economic development of the nation.

Also, we cannot ignore the environmental factors as well. I see a massive transformation and transition in the coming years in terms of environmental compliances, wherein the Indian automotive industry will be operating at par with the European or global standards, if not creating benchmarks for others to follow.

TEXT: Anwesh Koley

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