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TODAY

FEATURE-LIGHTING & SWITCHES

LET THERE BE LIGHT

Fuelled by technological innovations and need for energy-efficiency, smart lights and switches are enhancing productivity and well-being.



Photo courtesy: Schneider Electric India

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Light gives meaning to life. Irrespective of the space, the right kind of lighting doesn't just create a perfect ambience but enables the very function of life, with all the tasks it entails.

And in terms of the technology of light, we've come a long way. As Sachin Goregaoker, Director, GA design, says, "With innovations, lighting has transformed into a science that is constantly evolving. With the growth of LED as a major light source and the popularity of automation, lighting has metamorphosed in the world of design. We see fewer fixtures that can multitask to suit various requirements and the ambience of a space can change with the click of a button."

The market

According to research firm Million Insights, the global LED



Photo courtesy: Rajendra Shah & Associates

The affordability of automation and smart switches is an obstacle.

lighting market is expected to be valued at \$108 billion by 2025. Fuelled by technological innovations and inclination to clean, green energy solutions, LEDs deliver high efficiency and reduce costs. And India is taking note.

"India has fast adopted technologically advanced power solutions owing to the growing need for conservation of electricity," says Srinivas Shanbhogue, Vice President, Retail Business, Schneider Electric India. "Further, the government's vision to provide 24 x 7 electricity to all citizens in a reliable and affordable manner is a real push to the industry. Going by current estimates, India is well-positioned to become the world's first country to use LEDs for all lighting needs by the end of 2019."

According to Sanjay Gupta, Senior Vice President, Wipro Consumer Lighting and Switches, "The benefits of technology dovetail with the increasing demand for modular switches and energy-efficient lighting. LEDs are a revolutionary advancement and energy-efficient, eco-friendly, dynamic designs have fuelled the growth of the smart lighting switches market."

In the view of Amol Prabhu, Partner, Shashi Prabhu & Associates,



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"Nearly 50 per cent of energy saving can be done by using LED lights."



- Sumit Joshi, Vice Chairman and Managing Director, Signify Innovations India

"People prefer customised lighting that can suit their lifestyle and mood."

"Nearly 50 per cent of energy saving can be done by using LED lights; by adding smart lights and sensors, an additional 20 per cent of energy can be saved. A designer can reduce the LPD of a building by using smart lights."

And Vivek Sharma, Managing Director, Panasonic Life Solutions India, points out that the shift has been accelerated and work is on in earnest to consistently reduce, if not

QUICK BYTES

- India is well-positioned to become the world's first country to use LEDs for all lighting needs by 2019-end.
- The benefits of technology dovetail with the increasing demand for modular switches and energy-efficient lighting.
- Lighting market players and technology giants are expected to collaborate in coming years to ensure maximum RoI.

FEATURE-LIGHTING & SWITCHES



Across all segments and typologies, the value of lighting is being recognised, especially at the workplace.

totally eliminate wiring altogether. "If you look at wires, 85 per cent of the cost is of copper, which is not widely available. One way to reduce cost is to reduce the amount of copper and yet be able to conduct. Similarly, Internet of Things (IoT) and automation are developing. The conventional way of turning the switch on and off may eventually be a thing of the past. You can already control lighting with smartphones."

Smart homes

Indeed, a smart home has become the latest urban dream and lighting is an intrinsic part.

"With evolving urban lifestyles, people are seeking lighting that can be customised to suit their lifestyle and mood," informs Sumit Joshi, Vice Chairman and Managing Director, Signify India Innovations. "Our Philips Hue personal lighting range enables consumers to personalise their lighting experience using the Hue app on their smartphone, where the system syncs



- **Rupande Shah**, Principal Architect, Rupande Shah & Associates

"Focused lighting has helped the productivity of workspaces to a great extent."



- **Vivek Sharma**, Managing Director, Panasonic Life Solutions India

"Automation and Internet of Things (IoT) are developing."

seamlessly with music, movies and games, and transforms the room into an entertainment arena. Similarly, Philips CeilingSecure LED downlighter, an innovative Twist & Fit LED downlighter, has a modular design featuring a separate LED cartridge that can be fastened into the outer housing installed in the false ceiling of a room, allowing easy installation."

As per industry estimates, the smart homes solutions market in India is growing at a rate of 30 per cent YoY. Adding to that, Shanbhogue says, "There is a plethora of options in smart lighting for consumers, who have steadily realised the benefits, leading to a surge in demand. We have recently launched a range of three new wiring devices: Clipsal X, UNICA Pure and Avatar ON. These switches are technologically advanced and address the growing consumer market that demands style, strength and energy-efficiency. The products are one-of-their-kind in the Indian home distribution segment. Besides, a lighting solution, Wiser, has been

Welcoming the new era with IoT

IoT-based smart lighting solutions are enabling Indian offices to save costs on energy and maintenance bills, thereby enhancing productivity and improving comfort levels.

Vivek Sharma, Managing Director, Panasonic Life Solutions India, believes the aspiration of consumers and cultural acceptance are accelerating growth of IoT-based applications.

"Businesses are leveraging IoT technology to develop smart offices that promote a pleasant and productive work environment while saving costs," says Srinivas Shanbhogue, Vice President, Retail Business, Schneider Electric India. "Also, such lighting helps employee well-being and comfort, which have a positive impact on performance."

Elaborating further, Sanjay Gupta, Senior Vice President, Wipro Consumer Lighting and Switches, explains, "The emergence of IoT and big data, smart and connected digital lighting-based solutions like Power over Ethernet (PoE) are the way forward as they will bring in intelligence and functionality into lighting systems, enhance user experience, and deliver desired outcomes to customers. We have recently associated with Mapiq, a Dutch scale-up and frontrunner, to implement Internet of Lighting (IoL)TM in a smart building proposition. The first smart building in India arising from this partnership is expected to go live before summer 2019 and deliver a superior end-user experience in smart workplaces."



Installing glass partitions or walls ensures that light is filtered through the space uniformly, thereby minimising use of artificial lighting.

designed to set the lighting tone to suite one's disposition, and comes with a wireless system that combines modern intuitive design with state-of-the-art technology."

Joining the league is Panasonic Life Solutions India with its wireless products under the brand name Vetaar. "We have already tied up with Alexa and Amazon to market it on their network," says Sharma. "Currently, we do not have enough volumes or demand to justify our communication of this offering to consumers through TV ads. But word of mouth promotion is building momentum. Also, not many people are aware of home automation but those who can afford it, definitely know. There is a significant upcoming demand growth in

percentage terms, especially in the top 10 markets; however, in terms of quantity, the growth is small."

Meanwhile, Goregaoker reasons, "Owing to the fast pace of lighting innovations and change, it is challenging for a consumer to keep up with the latest products and technologies. However, consumers and builders are open to the idea of appointing a lighting consultant at the start of a project."

Enhancing productivity

Across all segments and typologies, the value of lighting is being recognised, especially at the workplace. According to Harmeet Singh Issar, Founder Partner, Design Director, Design Matrix, a recent study states that

nearly 55 per cent of office-goers complain about workplace lighting and 80 per cent want a more humane lighting that promotes good health, is in sync with the body's circadian rhythm, and supports work performance and sleep quality.

"Automation has helped a lot in the commercial working space as it automatically detects human presence and accordingly increases or decreases the quantity of lighting required for that area," explains Rupande Shah, Principal Architect, Rupande Shah & Associates.

"Instead of having dead lighting or flat lighting through workspaces, focussed lighting has helped the productivity of working spaces to a great extent."

Clearly, effective lighting is becoming the roadmap to enhance employee comfort and productivity through personalised control of workspaces, enabling performance tracking through real-time updates on lighting system status. "By changing the colour or intensity of light, workspaces can provide bio-dynamic light based on the human circadian rhythm for increased employee concentration, cognitive performance, alertness



"Automation and lighting should be taken into consideration at the onset of a project."

- Sachin Goregaoker, Director, GA design



"Energy-efficient and dynamic designs have also fuelled market growth."

- Sanjay Gupta, Senior Vice President, Wipro Consumer Lighting and Switches



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Photo courtesy: Shashi Prabhu & Associates

Instead of conventional fixtures, LED fittings provide a RoI of nearly 12 months and render a great aesthetic.

and well-being," says Gupta.

For his part, Joshi shares, "In large offices, our Interact Office platform, which was launched in India early this year, enables employees to personalise the intensity and colour of light at their workstation, thereby enhancing productivity."

"Installing glass partitions or walls ensures light is filtered through the space uniformly, thereby minimising the use of artificial lighting," adds Goregaoaker. "Vintage LED bulbs with a retro look are trending at the moment; they help to make the workplace look stylish and positively affect creativity." And Prabhu shares, "Instead of conventional fixtures, LED fittings provide a RoI of nearly 12 months and render a great aesthetic."

In Shanbhogue's view, lighting market players and technology giants are expected to collaborate in coming years to ensure maximum RoI and achieve huge profit margins from the evolving smart lighting market.

Combating challenges

Although the adoption of smart

lighting is on the rise, several challenges still prevail.

While Gupta confirms that consumers lack awareness of the benefits of using efficient LED lights, Shah points to the affordability of automation and



"It is crucial to first ask for better lighting and then ask for more control."

- Harmeet Singh Issar, Founder Partner, Design Director, Design Matrix



"Lighting helps employee well-being and comfort, which have a positive impact on performance."

- Srinivas Shanbhogue, Vice President, Retail Business, Schneider Electric India

smart switches as an obstacle.

Traditionally, lighting control has been viewed more as a feature to be tick-marked rather than a more holistic approach towards lighting and its controls. In Issar's opinion, while consumers are asking for more personalisation, automation and adjustability in lighting, all of it together cannot compensate for poor lighting. "It is, therefore, crucial to first ask for better lighting and then ask for more control," he asserts. "Otherwise, it will be more of a gimmick rather than something designed to improve quality of life."

Goregaoaker suggests it is important for an architect or an interior designer to take lighting and automation into consideration at the onset of a project as it minimises the need to rewire later.

What's more, lighting companies, manufacturers and consumers are getting increasingly aware of the benefits of sustainability and the importance of maintaining the green quotient.

"There are a lot of manufacturers, who openly disregard the standards set forth by the government of India for consumer safety. Thankfully, the situation has been slowly improving and we have seen a decrease of around 30 per cent in BIS non-compliant LED bulb manufacturers, and expect to see these numbers improve much further next year. The spurious and non-branded products are an issue for both, consumers and manufacturers alike," comments Joshi.

As for Sharma, he urges the government to set up certain standards. "Though the Chinese are not technologically and safety-wise strong enough, they copy designs. For this, a regulatory mechanism should be implemented soon."

All considered, though, there's only one way to describe the future: Bright!

- DIKSHA JAWLE **CW**

To share your views on the market for Lighting and Switches in India, write in at feedback@ConstructionWorld.in