

INNOVATION IN MANUFACTURING: WHAT WORKS

THE ECONOMIC TIMES, NEW DELHI / GURGAON, FRIDAY, JULY 14, 2017

CONSUMER CONNECT INITIATIVE



THE INNOVATORS:

STANDING (L to R): Abhishek Garg, Karbonn Mobiles; Alokesh Bhattacharyya, ET; Praveen Kumar, Janajal Water ATMs; Satendra Singh, Nokia; Gaurav Khosla, Hindustan Coca-Cola Beverages; Kishore Jayaraman, Rolls-Royce India and South Asia; Kunwer Sachdev, Su-Kam; Pradeep Nair, Autodesk; Varun Gadhok, Autodesk; Anil Kumar Makkar, JK Tyre & Industries; Ravishankar N., Otis India; Himanshu Ghawri, PwC India

SEATED (L to R): Ranganath N.K., Grundfos Pumps India; Arvind Mathur, Raymond UCO Denim; Palash Roy Chowdhury, Pratt & Whitney; Sujit Ghosh, Dalmia Bharat Group; G.S.K. Velu, Trivitron Healthcare; Pradeep Tewari, UNO Minda Group; Devendra Raghuvanshi, Punj Lloyd; Neelima Burra, Cargill Foods India; R. Jayaraman, SP Jain Institute of Management & Research; Sanjeev Agarwal, LAVA International

INNOVATE OR PERISH

KEY TAKEAWAYS

MANUFACTURING CULTURE NEEDS TO CHANGE TO SPUR INNOVATION, SAY INDUSTRY LEADERS AT A ROUNDTABLE ORGANISED BY ET AND AUTODESK

Debashish Mukerji

These are challenging times for India's manufacturing industry. The government has set an ambitious target of raising industry's contribution to gross domestic product (GDP) from 16% currently to 25% by 2025. Simultaneously, a new global benchmark, Industry 4.0, has become a buzzword, to whose requirements companies will have to adapt in coming days if they are to grow. Disruptive trends like 3D printing (or additive manufacturing) and robotics are gaining ground. All this makes innovation more crucial for Indian manufacturing than ever before.

To provide a platform for CEOs and CXOs of manufacturing companies from different sectors to brainstorm on the matter, The Economic Times and design and engineering major Autodesk organised a roundtable on the theme "Innovation in Manufacturing: What Works" in Delhi on June 28. Attended by 21 leaders of the manufacturing industry, the meeting saw a stimulating discussion around the impact of innovation on five areas - Strategy and Culture, Product and Process Excellence, Supply Chain, Technology, and Design Excellence.

Himanshu Ghawri, Director

Advisory, PwC India, set the ball rolling by noting that most CXOs he had met lately were concerned about Industry 4.0. "Also known as the smart factory or digital factory or the Internet of Things (IoT), Industry 4.0 is a concept wherein you are connected with all your ecosystem players, whether it's your customers or suppliers," he said. Palash Roy Chowdhury, MD India, Pratt & Whitney, elaborated. "It is the confluence of many technologies - 3D printing, materials technology, big data analysis, human robotics interface, and the ability to store and transfer gigabytes of data efficiently and cost effectively across networks."

Most participants expressed guarded support for Industry 4.0, though a few were sceptical. "It will give you process efficiency no doubt," said Anil Kumar Makkar, Manufacturing Director, JK Tyre and Industries. "But there are no solutions readily available right now. If you ask for a customized solution, your cost goes through the roof."

The question of how to inculcate a culture of innovation in an organisation dominated the discussion. "There are people who can be called 'gifted kids,'" said Kunwer Sachdev, MD, Su-Kam. "I would suggest, look for the gifted kids in your organisation. To accelerate innovation, separate

them from the rest and encourage them to innovate." Not everyone agreed "Innovation is not about an isolated set of people or resources," said Arvind Mathur, CEO, Raymond UCO Denim. "It has to become embedded in your entire business. You have to train everybody in using IoT."

But this proposition too provoked debate. "You don't need every person constantly innovating because you also need an organization which makes money or else your existence will be in question," said Ranganath N.K., MD, Grundfos Pumps India. Dr G.S.K. Velu, Chairman and MD, Trivitron Healthcare, felt the same. "I think innovation and manufacturing are separate departments," he said. "In manufacturing, what's important is to do the same thing again and again, properly."

A number of others, however, like Kishore Jayaraman, President, Rolls-Royce India and South Asia, preferred the middle path. "I believe it has got to be both ways," he said. "You need disruptive innovation, but you also need an innovation culture across the organization. You need an innovation culture that makes the company relevant." Indeed, there was not even need for innovation to be completely original every time. "Take a bunch of innovations

available outside, and bring them to market together in a way that is uniquely yours," said Pradeep Nair, MD, India & SAARC, Autodesk. "This is the skill we might have to learn more than trying to invent things that are completely new."

All agreed that direction had to come from the top. "Culture building begins from the top, and the person at the top has to have the right vision," said Pradeep Tewari, CEO, Body & Structure Domain, UNO Minda Group. "Then you need to build an ecosystem of innovation, maybe make investments, though there is no guarantee that if you've put in a lot of money, you will be successful at innovation. You have to reward effort as well, not only success." The responsibility of top management was immense. "You have to do a lot of small things, you have to handhold, you have to reward failure, you have to give people latitude to act, you have to celebrate small success," said Sujit Ghosh, Head, Innovations, Dalmia Bharat Group. "You have to build employee pride in the organisation."

Satyendra Singh, Head of Strategy and Business Development, Global Manufacturing Operations, Nokia, stressed the importance of creating a democratic environment. "You have to value diverse opinion," he said. "As a leader, you have to ensure your vision is shared across the organisation." And even if investment does not always yield commensurate results, it is imperative. "Apart from the people you employ, there is an additional item on which you need to constantly focus - labs and high capital investment," said Ravishankar N., R&D Head, Otis India.

Many speakers stressed the importance of the marketplace in shaping innovations. "A culture of innovation comes automatically if we are attuned to customers' needs," said Praveen Kumar, Joint MD, Janajal Water ATMs. "In the process of taking care of those needs, people will have to innovate." Abhishek Garg, VP, Head of Manufacturing and New Business Development, Karbonn Mobiles, emphasised: "Technological innovation will happen in the R&D lab, but beyond that, the challenge is to find ways of reaching the customer more quickly," he said. "If we are late in providing a particular technology, the product will fail." Added Gaurav Khosla, Senior VP, Strategic Procurement, Hindustan Coca Cola Beverages, with reference to the supply chain: "We have to become more nimble," he said. "Not just within our plants but also out in the market."

Which are the technologies likely to flower as innovation becomes pervasive? "3D printing, drones and robots," said Varun Gadhok, Head, Manufacturing Solutions, India and SAARC, Autodesk. "Increased digitalisation, more software building, and additive manufacturing - not just of materials, but also medicines, food and so on," said Ranganath N.K. "The most important thing for all this will be Material Science." Pradeep Tewari added nano-technology to the list. "We've seen this happen already in the pharma industry in a very big way and now industrial companies are also beginning to adopt this technology," he said.

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PRADEEP NAIR

MD, India and SAARC, Autodesk

Taking a bunch of available innovations and bringing them to market together in a unique way is a skill we might have to learn more than trying to invent new things

HIMANSHU GHAWRI

Director, Advisory, PwC India

Industry 4.0 is a key concept. Globally, around 33% of CXOs maintain they are on course to implementing it; in India, the figure is about 27%

PRADEEP TEWARI

CEO, Body & Structure Domain, UNO Minda Group

Do you reward only the ideas that succeed? Reward the ideas that fail as well; it is a significant step towards building an innovation culture

ARVIND MATHUR

CEO, Raymond UCO Denim

It is not an isolated set of people who drive innovation. Innovation culture has to become embedded in your entire business

SUJIT GHOSH

Head - Innovations, Dalmia Bharat Group

You have to handhold (employees), you have to reward failures, you have to give people latitude to act, and you have to celebrate small successes

NEELIMA BURRA

Chief Marketing Officer, Cargill Foods India

Innovation has to be embedded in the annual operating plans of the organization, revenue and resources have to be allocated for it, and progress monitored

PRAVEEN KUMAR

Joint Managing Director, Janajal Water ATMs

What I look for is attitude. If a person has the right attitude, he can be developed into an innovator

SATYENDRA SINGH

Head of Strategy and Business Development, Global Manufacturing Operations, Nokia

Success at innovation depends on your vision. Have you shared it, have employees bought into it? Do you value diversity of opinion? Unless you do, innovation will not happen

R. JAYARAMAN

Professor-Operations, SP Jain Institute of Management & Research

If you want to drive innovation, you need cultural transformation. And if you want cultural transformation, you need to adopt the philosophy of business excellence

SANJEEV AGARWAL

Chief Manufacturing Officer, LAVA International

In an organization, everyone has to contribute, everyone has to improve, and those big improvements are called innovations

KUNWER SACHDEV

Managing Director, Su-Kam

To accelerate innovation, look for the gifted kids in your organization. Separate them from the rest and encourage them to innovate

RAVISHANKAR N.

R&D Head, Otis India

A supportive company culture and good people are obviously needed for innovation, but there is an additional item - labs and high capital investment in them

RANGANATH N.K.

Managing Director, Grundfos Pumps India

Two types of innovation are needed - one, completely disruptive, which has nothing to do with the normal people in the company or the shop floor; and two, incremental stuff

KISHORE JAYARAMAN

President, Rolls-Royce India and South Asia

You need an innovation culture that makes the company relevant. Innovation, without focusing on the relevance of what is being attempted, makes no sense

DEVENDRA RAGHUVANSHI

Plant Head Manufacturing, Punj Lloyd

Only 10-15% of manufacturing processes create value. We need to find innovative ways to cut down the time and money spent on processes that do not add value

G.S.K. VELU

Chairman & Managing Director, Trivitron Healthcare

Innovation and manufacturing should be separate departments. Innovation should happen in the R&D department; manufacturing should do the same thing again and again, properly

PALASH ROY CHOWDHURY

MD - India, Pratt & Whitney

A company should address the needs of its customers, but innovation can go beyond that. Sometimes innovation creates products and services that customers did not even know they wanted

ANIL KUMAR MAKKAR

Manufacturing Director, JK Tyre & Industries

Innovation is not a laid down switch, which you put on or off; it is a process. Value proposition for the customer is the first starting point

ABHISHEK GARG

VP, Head of Manufacturing & New Business Development, Karbonn Mobiles

Bigger innovations are required in getting a product to the market quickly. If it doesn't reach the market in time and at the right price, it will fail

GAURAV KHOSLA

Sr. VP, Strategic Procurement, Hindustan Coca-Cola Beverages

Product life cycles are shortening. Companies will have to learn to be more nimble, not only within the organisation, but also in the marketplace

VARUN GADHOK

Head - Manufacturing Solutions, India & SAARC, Autodesk

How do we socially connect on design or innovation? Do we leverage the minds all around the globe to design a particular product or make a new innovation?