

The INTERNET OF THINGS Growth Path



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The phenomenon of getting smart devices to communicate with each other over the Internet, without human intervention, has led to the much-hyped term, the Internet of Things (IoT). While much is expected from this evolving technology, we take a close look at the opportunities and constraints in India.

What is the biggest challenge in India's growth story when we consider a sector—agriculture, power, education, healthcare or infrastructure? The answer is simple. It is the country's inability to keep up with the global standards of productivity and efficiency. The IoT, the connectivity between people, things and data, can help in a big way to improve this situation.

Perhaps one of the earliest and best-known applications of such technology has been in the area of energy optimisation—sensors deployed across the electricity grid that can help utilities remotely monitor energy usage and adjust generation and distribution flows to account for peak times and down-times. So, this is the role that the IoT can play—increase productivity and efficiency.

Similar applications can be introduced in a number of other sectors. A farmer, for example, can get harvest and other farm-related data captured by GPS satellites as well as by the sensors on tractors and in the field. This real-time data can be stored in

Cloud based systems so that the farmer can easily access it via charts and reports, with the help of applications on his mobile device. This data can then help the farmer decide which seeds to plant, when to harvest and how much yield to expect, all of which will enable more efficient production.

Medical practitioners can use the information collected from wireless sensors in their patients' homes to improve their management of chronic diseases. Through continuous monitoring, rather than periodic testing, treatment efficiency can be improved while treatment costs can be reduced.

The market for IoT-related components, products and solutions is bound to grow significantly in the country as soon as consumers, businesses and the government start recognising the benefits of connecting inert devices with people and data. That market, in turn, may represent a significant growth opportunity for organisations offering those related components, products and solutions.

Executives from such organisations were interviewed recently as part of our monthly industry survey. In this article, we take the pulse of the IoT market in India.

Mapping the opportunities

According to NASSCOM, an apex trade organisation for the IT and IT-enabled products and services industry, the global IoT business is expected to touch US\$ 300 billion by 2020, and India aims to capture 20 per cent of that market in another five years. This reflects the transformational potential of the IoT in both consumer and business-to-business applications.

In sync with this projection, around 95 per cent of the executives we interviewed stated that the IoT business of the country will see positive growth in the financial year 2016-17 (Fig. 1). Forty per cent of the respondents expected ten per cent to 20 per cent year-on-year growth (Fig. 2).

At present, the growth of the IoT business is primarily driven by consumers shifting from devices such as laptops and tablets to smartsensors, wearables and clustered systems like fitness trackers or smarthomes. However, with the goal to improve human productivity, safety and the overall quality of life through a network of smart connected devices, the potential of IoT technology seems to manifest itself in applications far

Methodology

For the survey, 120 senior professionals involved in the IoT industry were randomly selected. Of these, 22 shared their inputs. This sample is a micro-cosmic representation of India's IoT industry. Survey participants were requested to share their insights on the following:

- Growth of the Indian IoT industry in FY 2016-17
- Expected growth per cent
- Major demand-generating applications
- Customer categorisation
- Hindrances that impact the growth of this sector
- Technology trends in this sector

Responses obtained from the interviews were then collated and analysed.