

Integration of the IoT into the healthcare system could prove to be incredibly beneficial. A chip could be implanted into each individual, allowing for hospitals to monitor the vital signs.

The IoT can also function as a tool that can help people save money by making home appliances communicate in an energy-efficient way. In fact, it can help to design innumerable ways of offering innovative services, using smartdevices, machines and products.

Organisations can benefit from new revenue streams generated by new business models and services, besides reduced time to market and increased returns from their R&D investments.

Today's manufacturers face extraordinary challenges in the form of rigid specifications, tight timelines and even tighter budgets. The IoT can help with the performance tracking of large industrial equipment and the monitoring and control of factory assets. Analogue sensors, for instance, can measure real-world conditions, while process-control systems measure performance and control manufacturing.

Opportunities beckon

According to the interviewees, the top three demand-generating application areas (Fig. 3) are expected to be:

1. Industrial (smartfactories, industrial Internet, etc)
2. Energy (smartgrids)
3. Building and home automation (smarthomes)

Organisations in industries such as consumer durables, automotive, electricity supply, manufacturing, logistics and retail, that can effectively harness and exploit the data created by the IoT, will enjoy significant competitive advantage.

The IoT offers huge revenue-generation opportunities in the areas of:

- Business intelligence (BI) and analytics for decision support
- Security-level management and

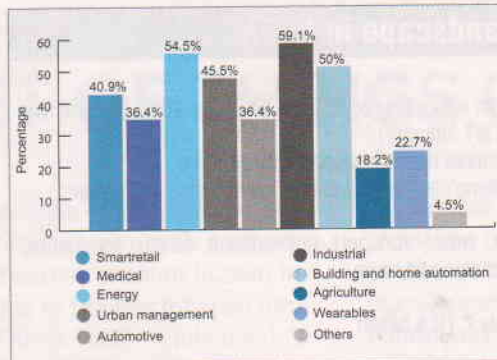


Fig. 3: Growth of the IoT industry within the main sectors driving it in India

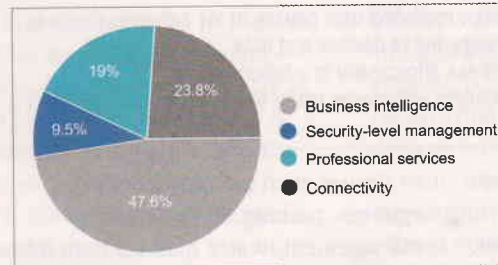


Fig. 4: Expected revenue generating options in the IoT business in India

- performance management
- Professional services including consulting, integration and software development
- Connectivity and communication services, associated hardware, devices and components

According to almost 48 per cent of the survey participants, smart services for BI and analytics are going to capture the largest share of the overall revenue pie (Fig. 4). BI and analytics, which would include decision-making, alerts, etc, are expected to generate more revenue because many companies will want to get their hands on newer technologies that offer more benefits and values.

Intelligent analytics tools provide guidance on the best practices to enable users to make the most of the data. An IoT solution must deliver business value, and this can happen through BI, which holds the key to understanding customer preferences and making products that address key requirements in a customer's life.

An ample number of IoT solutions are available in the market,

but one needs to be diligent in choosing the right one, and this can be done through BI.

Second, good intelligence requires a lot of domain knowledge, especially as operations transit from being reactive to predictive. This is where most of the intelligence would contribute to sales and revenue enhancement, and so would be of interest to many.

Analytics directly give the companies assured feedback of customer behaviour, which saves a lot of market research time. It helps keep track of processes and increases productivity. There are firms that help generate analytical reports. While the cost of collecting data is getting lower, very few organisations have

the time and ability to analyse the data and convert it into actionable insights.

Artificial intelligence (AI) and machine learning will drive the next technology wave in business operations, and will be aided by high-resolution IoT-driven data, the likes of which have never been seen or used before.

According to almost 24 per cent of the survey participants, value creation will also stem from hardware, software, services and integration activities provided by the technology companies that enable the IoT (Fig. 4). The number of connected devices across the world is expected to reach 26-30 billion by 2020, according to a Gartner forecast. India will constitute about 30 per cent of this overall pie. Device connectivity is the fundamental aspect of any IoT application. So the sheer volume of deployment will generate a huge demand for communication hardware, modules, devices and also services. This is where electronics plays a role.