Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

EMC²

Utilities

Big & Fast Data: The Rise of Insight-Driven Business

Big data is highly pertinent to utilities because they increasingly need the ability to convert the deluge of data into insights

Capgemini view

This industry is facing game-changing market disruptions. Changing attitudes in energy consumption and major pending infrastructural changes are negatively affecting both top and bottom lines. Consumers are becoming both producers and competitors.

In this dynamic environment, the large established companies are threatened by new niche players who are more agile and better at customer experience, and have lower operating costs. The successful utility of tomorrow will be an energy services company – a producer, gatherer and exchanger of information, products and services that can significantly affect the lives of consumers.

Big data is highly pertinent to utilities because they increasingly need the ability to convert the deluge of data from (for example) smart meters into insights that will drive both short-term efficiency initiatives and long-term business value creation. Three areas are critical: (1) improving customer satisfaction and building new customer relationships; (2) achieving operational excellence by capturing and analyzing the data needed to plan, build and operate assets on a near real-time basis; and (3) developing new business models for energy conservation and storage, as opposed to generation, together with ecosystems to shape related revenue streams.

In addition, companies hope big data will help them address many of the challenges associated with smart rollouts, including aging assets, difficult grid operations, field services, and regulatory reporting.

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

EMC²

Perception of big data as a disruptor

Given the changes described above, it is not surprising that in our study the utilities industry stood out for its above-average experience and expectation of disruption from new competitors moving in from other industries. In the past three years, 37% of utilities respondents noted this disruption compared with 24% across all industries. More surprisingly, in the next three years the difference was less marked, with 32% of utilities expecting disruption compared with an average of 27%.

37%

of utilities respondents noted this disruption compared with 24% across all industries

Awareness of big data opportunities

The utilities industry has a strong perception of the opportunities associated with big data and is much more likely than average to agree strongly that big data provides new business opportunities (42% strongly agreed compared with an average of 32%).

Our experience confirms this finding. Though traditionally considered a conservative adopter of technology, the utilities sector has a tremendous interest in big data as an enabler of new revenue streams and a driver for operational transformation. It also sees big data as a way to transform networks, improve generation performance, drive operational excellence, and foster customer intimacy. There is increasing interest from regulators and governments to ensure efficiencies and stability, and to de-risk disruption to utilities, with big data being a key capability.

Techniques like data-driven predictive analytics and stochastic modeling are needed to support smart rollout.

Implementation approach

Utilities companies were slightly behind the average in rolling out big data technology, with 68% at some phase of implementing big data technology, compared with 71% average overall. Our experience is that utilities vary a great deal in their maturity of big data adoption, from those that are rolling out data lakes to those that are waiting for feedback from early adopters.

However, 63% of utilities (versus an average for all industries of 56%) expected to increase investment in big data over the next three years, suggesting that they may soon forge ahead. Another sign of commitment was that utilities were more likely than average to have restructured to exploit big data opportunities.

In our work with utilities companies, we see big data use cases from both IT and business. The demand from the business arises from the drive for customer insights, faster decision-making, and support for the smart grid infrastructure – since a truly smart grid depends on suppliers' ability to make sense of data in order to route energy efficiently to the places where it is needed most. From IT come cost-based use cases for offloading data from traditional database technologies to Hadoop, as well as interest in consolidating legacy systems into a data lake.

About Capgemini

With almost 145,000 people in over 40 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2014 global revenues of EUR 10.573 billion.

Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Learn more about us at
www.capgemini.com/insights-data

or contact us at
insights@capgemini.com