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Intelligent Automation is boosting operational efficiency, topline growth and customer engagement for global energy and utility companies

The sector must focus on quick wins in core functions such as forecasting, yield optimization and complaints management

Paris, May 28, 2019 – The global energy and utilities sector is making increasing use of intelligent automation, including a significant rise in the use of Artificial Intelligence (AI) since 2017, but executives are underestimating its full potential with large scale projects taking a back seat, according to new research from the Capgemini Research Institute.

The "Intelligent Automation in Energy and Utilities: The next digital wave" study found that nearly half of respondents have under-estimated the benefits they derived from their intelligent automation initiatives, while only 18% of organizations are deploying quick-win use cases, and just 15% of those surveyed said their company is deploying multiple intelligent automation use cases at scale.

The report highlights that the traditional energy and utilities business model is under pressure worldwide, with technological changes and increased competition making their presence felt. It cites that automation and AI will also be instrumental in helping these companies to meet climate change goals and the growing demand for clean, cheap, reliable energy.

The report also shows significant regional and sub-sector disparities in the scaling of automation:

- In the United States, 23% of energy and utility companies have deployed intelligent automation initiatives widely at scale, as have 16% in both France and India, compared to just 8% in the UK.
- Meanwhile, a fifth (20%) of oil and gas executives reported multiple use cases at scale, compared to just 6% from water companies.

While the sector is deriving significant value from intelligent automation compared to other industries, scaling, seizing quick-wins and overcoming the critical digital skills gap will be key to bringing it into the mainstream.

Key findings of the study, which surveyed 529 leaders at manager level or above in energy and utility companies, include:

Intelligent automation is delivering significant benefits to the sector:

The report finds that the sector is already seeing significant value from automation, in terms of boosting operations, topline growth and engaging customers, compared to other industries. A consistently higher percentage of executives in the energy and utilities sector said they'd achieved benefits from their intelligent automation initiatives compared to the response for 'all sectors'. Example areas of benefit included:

- 40% of executives said they had seen an increase in operations quality (30% for all sectors)
- 45% had seen an increase in inbound customer leads (27% for all sectors)

- 81% had improved the customer experience through faster responses (60% for all sectors)
- 78% saw a reduction in the number of processes relating to queries and purchases (61% for all sectors)
- 32% had seen an increase in staff productivity (26% for all sectors)

In terms of the benefits, 47% have underestimated the cost savings, 48% the customer satisfaction, and 45% the impact on net and incremental revenue.

Abhijeet Bhandare, Chief Automation Officer at GE Power, explains. *"We have a very clear filtering criteria defined for automation use cases. We have close to 200 automation ideas in the pipeline, and on average about 50% to 60% of them will be rejected. It is important to focus your attention on the remaining 50%, as they will give you the most value. And you must have the right criteria – whether it is value, efficiencies, cost savings or the opportunity cost. Organizations should focus on quality over quantity of use cases."*

80% of organizations are missing out on quick wins for critical use cases:

In core functions, only 18% of energy and utility organizations are deploying quick-win use cases (those that are low on delivery complexity but high in terms of benefits achieved such as forecasting, energy trading, yield optimization, grid behavior interfaces and complaints management). Instead, just over a third of the energy and utility organizations (38%) are focusing their efforts on use cases that are easy to implement but which have a low-benefit upside.

Business related challenges and skills gap hamper deployment at scale:

While overall adoption of AI has matured in the sector, with the majority (52%) of respondents having deployed a number of use cases (compared to 28% just deploying pilots two years ago), only a small minority (15%) of executives said their company was deploying multiple intelligent automation use cases at scale.

Business-related challenges were cited by respondents as barriers to scaling including a lack of co-ordination across different business units (37%), a lack of leadership commitment (35%), and an organizational reticence to experimenting with technology that could replace human workers (34%).

Many executives also pointed to a shortage in skills as a challenge. A majority (55%) cited a lack of talent skilled in automation technologies, with 47% identifying limited efforts to reskill employees, 42% the difficulty of retaining employees with the right skills, and 41% employee resistance to learning new skills.

Philippe Vié, Global Head of Energy & Utilities at Capgemini, comments, *"The energy and utilities sector is already seeing the difference that intelligent automation can make in improving business efficiency, customer satisfaction, and revenue. Executives are quite rightly making the deployment of automation one of their top priorities.*

"Now the focus must shift to the factors that will enable the scaling of multiple use cases including an investment in specialist talent, more integrated co-ordination between business units, and a stronger commitment from leadership. Having tasted the benefits of automation, energy and utility companies must now redouble their investment to reap the full rewards."

Research Methodology
The Capgemini Research Institute conducted a primary survey of 529 business leaders at the manager level or above in energy and utility organizations experimenting with or implementing automation. Respondents were based in seven countries – the United States, Germany, India, United Kingdom, France, Netherlands and Sweden – and across five sub-sectors: electricity utilities, oil and gas, energy services, water utilities, and electricity and gas utilities.

The report can be downloaded here

For a deep dive into the intelligent automation landscape across sectors: '*Reshaping the future: Unlocking automation's untapped value',* a 2018 global research study from Capgemini Research Institute

For a comprehensive view of the Energy and Utilities market trends, see World Energy Markets Observatory 2018

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