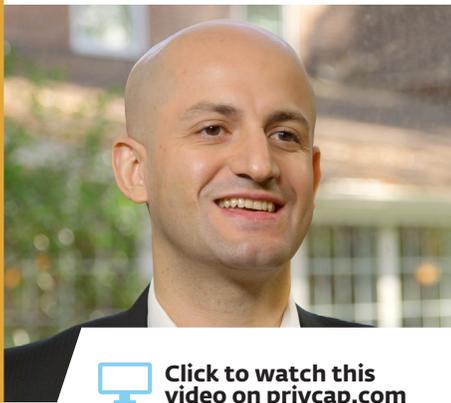


Oil & Gas: The Data Analytics Opportunity

Ali Sharifi of Kerogen Capital discusses the key challenges, success stories, and the likely path to further adoption of data in the oil & gas industry

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Privcap: What are the opportunities in data analytics today?

Ali Sharifi, Kerogen Capital: I think with the improvements in computing power, cheaper sensors, and improved mobile connectivity, more data is being collected by the industry and there have been more applications to solve industry's problems. I think the top three things that we see are, first, that during the past two or three years, there has been more commitment from senior management to set a digital strategy.

The second thing [is that] we're seeing very successful pilot-led projects, that they're demonstrating the material benefit of using data analytics in the field. Lastly, the industry has been upskilling as well. There has been a series of firms and startups being developed that have been absorbing new data scientists, software engineers and subject matter experts to help combine domain expertise with digital solutions.

What are some of the challenges in getting energy firms to adopt data analytics as a value-creation tool?

Sharifi: Research indicates that less than 5% of data that's been collected is being used. Some of the challenges are data integration, as well as having the functional silos that organizations have set up. Lastly, the industry has had some challenges in terms of accepting new technology at a very fast pace. There has been some cultural resistance applying new technologies within the sector.

How are upstream firms using data to their advantage?

Sharifi: We're seeing three main areas that are worth mentioning. One of them, in onshore oil and gas operations, is the

improvement in automation. Second thing is digital twin, when it comes to using that vast number of data for offshore platforms. Lastly, we're looking at subservice data and analytics complemented by machine learning and AI-enabling tools.

What's an example of a successful use of data analytics by an energy firm?

Sharifi: In terms of the onshore landscape, we see that there's a lot of the works related to the wells—it's repetitive and labor intensive. So, automation could play a material role. In one of the cases we came across, a company based in Silicon Valley that partnered with a lower-48 operator. They set a series of pilot tests, a few hundred wells in few pads to use close loop automation with high-frequency control systems to improve their production, applying the AI-based tools to their artificial lift fleet.

Through a six-month trial, the results were phenomenal. Production improved by 20 percent, operating expense was reduced by 22 percent. Also, in terms of the environmental footprint and health and safety, there were material improvements.

Do you see adoption of data analytics coming from the top down, or bottom up?

Sharifi: We see the penetration is happening faster in smaller companies. As we saw with the shale boom here in the U.S., it was mainly driven by independents and small players.

Their independents are more open to share information amongst themselves, and to leverage their learning from one field, and one operation to the next. I think we do see that being applied more into digital solutions as well. ■