



CEO Insights

Digital Disruption & Integration of Downstream 4.0?

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 - Fahad Al-Sudairi, Chief Executive Officer, Saudi Electricity Company
 - Sulaiman M. Ababtain, President & Chief Executive Officer, Saudi Aramco Total Refining & Petrochemical Company
 - Eng. Rasheed Al-Shubaili, Vice President – Communications, National Industrial Development & Logistics Program
- Moderator:* Dyala Sabbagh, Partner, Gulf Intelligence

Dyala Sabbagh (DS): How significant is the speed of adoption of digitization in Saudi Arabia? Are downstream industries moving fast enough to take advantage of the new technologies available?

Mutlaq H. Al-Morished: I've been in the industry long enough to see these things come and go. We have to be careful and make sure it always adds value to our

business. Yes, digital technology can be used for efficiencies but it's not for everybody. You have to assess if it really brings tangible improvements.

DS: The regional petrochemical industry has faced a major competitive challenge in the last few years with its natural feedstock advantage disappearing versus its global competitors. It also struggles to compete

internationally on high value products. Would adoption of industry 4.0 tools not make a difference?

Mutlaq H. Al-Morished: The chemical industry is, in fact, ahead on technology in many ways. We deploy thousands of transmitters, for example, which add value to processes and communication, but again, we should not look at this with one brush stroke. Not everybody needs to adopt this technology and there is also still a lot of ignorance on what industry 4.0 actually represents.

DS: From the refining perspective, what impact are these technologies having on profitability?

Sulaiman M. Ababtain: SATORP (Saudi Aramco Total Refining and Petrochemical Company) is a relatively newly-built facility. What is important is that when we develop a strategy for digital transformation, we understand what value it brings and how to then achieve it. I agree that application will not be at the same level for all industries. What fits one refinery may not fit another. But it is very necessary. Digital transformation is not automation. It's much more than that. It's the change in the way we do business and a total ecosystem between stakeholders that will need to be developed. The technology we are going to witness in the next 20 years is going to move fast and it's going to touch a lot of businesses. We must be ready.

DS: From a commercial point of view, does integrating these tools into operating systems give enough of a timely payback?

Sulaiman M. Ababtain: Today, we may look at digital transformation as a commercial investment but later, it will be a necessity to survive. As a refinery, our only concern is reliability and that comes with the safety of our most valuable assets. The other factor is productivity. We want to ensure that our plants satisfy demand.

DS: How important is it that the C-suite incorporates digital technology into strategic decision-making? Should it be a top-down approach or should operations managers on the ground dictate what's needed?

Michael Train: The answer is yes to both. The C-suite has to provide the vision and has to have a dialogue with the organization. On the one hand, they have to give their people permission to consider change and on the other, they have to push for some change themselves. A lot of this activity is a change in management exercise and the middle of an organization is often resistant to change. It's a space with up to 50 years of operative

10mn

The Saudi Electricity Company (SEC) expects to add nearly half a million new customers every year (400,000) to its existing customer base of 10 million. Accordingly, the company has developed comprehensive partnerships with leading universities in Saudi Arabia to explore how best to use harvested data to continue a safe, reliable and affordable service amid rising demand.

3x

Industries in the Middle East are vulnerable to cyberattacks; between two to three times more than the global average.

\$6trn

Cybercrime damages will cost the world \$6 trillion annually by 2021, up from \$3 trillion in 2015, reported Cybersecurity Ventures. Such attacks worldwide already cost the world \$600 billion in 2017, 0.8% of global GDP, according to McAfee. Sharpening digital defenses must be a continual effort.

experience, and when we make a mistake, it could kill people. So, there's a good amount of reluctance there. But we do need the change, as ultimately it will bring more uptime and safety.

DS: Saudi Electricity Company (SEC) is the largest electricity distribution company in the region. How is all of this impacting the sector? Is there a negative to implementing 4.0 technology into your systems? We have seen how the more sophisticated the linkages in operations, the more exposure there is to having malware attacks. As a huge provider of a very important resource, how fast do you think we should be moving ahead with adoption?

Fahad Al-Sudairi: SEC is serving ten million customers, so we are quite unique in this way, but we are also behind in digitization and in transforming to using smart solutions to serve our customer base. We're still operating mechanical meters to read the electricity consumption of each consumer. The customer wants accuracy and to be able to manage his energy needs with confidence. Smart meters would also help the utility company to project demand and to run operations and transmission into the distribution network more efficiently and control costs. The power sector today has been given a big mandate to restructure, so in line with that, we have to introduce a lot of digital solutions into our operations.

DS: In terms of cybersecurity exposure, statistically industries in this region are being attacked 2-3 times more than the global average. Why is that? Do they not have protective systems in place?

Sulaiman M. Ababtain: The cyber security issue has always been a concern, and this will increase with digital transformation, so we are preparing the infrastructure and security measures required for this. At the same time, we need to remember the advantages that technologies like machine learning, data collection and artificial intelligence bring. More dialogue between humans and the machines leads to stronger safety and efficiencies.

Michael Train: Everybody has cyber security concerns and we do need to be on our guard. But before companies expose themselves to remote connections, they should consider the balance of how much of this enhanced connectivity is needed externally versus internally and I would say that 70% of the benefits would be for the latter.

DS: At the National Industrial Development & Logistics Program (NIDLP), you are working with the Saudi Vision 2030 strategy. How much direction is being given to the various industries on their



restructuring and should they all be working in tandem in terms of the speed of digital change?

Eng. Rasheed Al-Shubaili: In my previous industry role as CEO of Dussur – an industrial investment company created by the Public Investment Fund, Saudi Aramco and Sabic – the installation and integration of 4.0 tools was always an area of focus with potential partners. At NIDL, we are primarily focusing on integrating and synergizing four key sectors in Saudi Arabia: energy, mining, industrial and logistics. One of the key pieces of our strategy is to introduce and enable industry 4.0. There are many elements to put together: the legal framework, capacity centers, labs, etc. And also helping existing industries transform operations to becoming more digitized via the '100 Companies Program'.

DS: *The more industries digitize, the more they accumulate valuable data. Are companies using this to monetize new business opportunities?*

Fahad Al-Sudairi: There is a gold mine of huge data that can be transformed to generate additional revenue. Our customer base is growing by nearly 400,000 annually and we already have comprehensive

“Data is a treasure. It hits the triple bottom line: via operational maintenance, environmental efficiency and people.”

partnerships in place with leading universities in the kingdom to look at how we can add value to the company with this data.

DS: *Saudi Aramco generates billions of data points a day on surface and sub-surface operations. The technology is there and already capturing this, but is it being used or integrated to make decisions on efficiencies?*

Sulaiman M. Ababtain: Data is a treasure. When we can monitor compressors for example, it not only protects equipment and avoids the cost of repair, it also helps us avoid the commercial consequences of unplanned shutdowns and improves safety. So, it hits the triple bottom line via operational maintenance, environmental efficiency and people. In cooperation with our partners, we will continue to explore how we can add value with all of this information.

**Edited transcript*