



Speaker Interview with **Senthil Ramani- *Managing Director, Digital Business Lead and Director, IOT Center of excellence - Resource Industries, Accenture Consulting***

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**1. What are downstream operators doing to improve productivity and efficiency? What more can they do?**

Asset intensive industries—once known to be resilient to digital change—are quickly realizing the value potential of digital and IoT. In Singapore for instance, bolstered by support from the government to increase productivity, downstream operators are investing in IoT to become connected, intelligent, rapid and scalable.

But while years of process improvement have brought high levels of safety and efficiency to operations, megatrends such as changing resource availability and the need to operate in emerging markets are constantly raising the bar for operational excellence. According to Accenture research, 90% of business leaders say that it is important to act now to transfer their business models in the digital age. Investing in digital technology such as IoT can further companies' operational excellence by improving safety, productivity and energy efficiency. Going beyond automating select processes, operators can embark on total digital transformation, utilizing sensors and data analytics to upend traditional business models, and significantly alter their bottom lines.

**2. What are your views on Asia's downstream industry's competitiveness compared to counterparts in other regions i.e. America, Europe and the Middle East markets?**

With a slew of new production capacities coming on stream across India and China, Asia will continue to maintain its competitive advantage as a downstream hub. Given the region's rapidly growing middle class, and consequently demand for petroleum and petrochemical products, Asia's downstream industry will play a seminal role in catering to the region's consumers. But increasing supply and hence competitive pricing will put pressure on manufacturers to add value to stay afloat.

To win in the coming years, operators will need to consider new approaches to customers, business models, innovation, operations and the workforce. They will need to take advantage of evolving digital technologies to drive higher performance levels.

**3. What technologies are you using currently or investing in to improve your operational efficiency?**

We elect not to answer this question.

**4. The collection of data is not new within the refining and petrochemical industry – how is data analytics changing the way information and data is being used?**

The amount of data generated within an industrial site is astounding. For example, a platform generates an average of between one to two terabytes of data in the span of one hour. An LNG train averages close to thirty megabytes per minute. Today, analytics translates vast amounts of data into meaningful and actionable insights. By making music out of the noise, data analytics is equipping decision makers with information they need to make cost saving decisions, rapidly, and at scale. The technologies for digital transformation have arrived, and the digital workforce is seeking to do things faster and smarter. A combination of these effects is seeing an unprecedented use of analytics in the industry.

**5. How is analytics assisting asset management?**

Data collection and analytics are enabling uninterrupted remote surveillance of any equipment, plant or production site. This means that operators are able to manage equipment and production more effectively, efficiently and safely, freeing up existing resources to upskill talent to focus on higher value-added business tasks. Analytics paves the way for the realization of tangible business benefits. IoT adoption results in increased asset utilization (3-5%), maintenance productivity (10-15%) reduced asset downtime (1-5%), total maintenance costs (15-30%) and technician overtime (20-25%). Digital can help operators with anything from being an advisor to the plant, to making completely automated decisions through the use of cognitive science.

**6. In your opinion, how are IoT, big data, and virtualisation transforming the industry? What are the challenges you foresee for the operators to adapt? What are the first steps ahead**

Digital and IoT form a vehicle for transformation of the CEO agenda. Digitization is spurring the development of new business models, enhancing plant safety, productivity and efficiency, and equipping executives with the information they need to maintain their market position. IoT serves industrial customers the same way e-commerce does technology companies. Years ago, technology and media companies began leveraging e-commerce to become digitally relevant.

Today, the answer for industrial customers is to adopt IoT so that they can achieve the same goal.

Some challenges with regards to adoption include capex and security. As with any other investment, executives will need to analyse projected return before taking the digital plunge. But capex requirements vary, as existing infrastructure can often be utilized in the digitization process. Alternatively, leasing and renting has become a popular scheme with regards to IoT adoption. Cybersecurity may represent another concern for operators, and in an increasingly digital world, the posture needs to change from defensive to proactive. Companies will have to examine their networks holistically, across layers including cyber, operational technology and electro mechanical.

#### **7. What will be the highlight of your presentation at Asian Downstream Week?**

Stay tuned for a discussion of key opportunities and barriers associated with digital transformation, as well as practical, real life examples of IoT adoption at scale. I will also be highlighting the importance of digitizing wisdom, as the industry prepares for an influx of digital native millennials into the working world.