Data Analytics will become the norm - are you at risk of being left behind?

Data Analytics and Management (DA&M) is the science of examining available data to inform and improve business and technical decisions. This relatively new area of business analytics is being driven by the 'Big Data' phenomenon and is becoming commonplace in many sectors where organisations are using historical performance data and predictive modelling to support a wide variety of operational and business needs.

Despite this, Data Analytics (DA) for the more technical applications (e.g., engineering, operations and maintenance) in oil, gas and chemical sectors is less mature and is, often by necessity, more customised. However, the forward-leaning companies are recognising that applying incisive analytics has the potential to support improved and timely decision making to deliver significant performance improvements related to safety, environmental protection, operational efficiency and profitability.

Eventually, the application of DA will become the norm, and those who embrace it early are starting to differentiate themselves by how well they are applying it.

Lessons from the Early Adopters

ABS Group has been supporting organisations in building innovative digital platforms that use data to monitor, analyse and manage a broad range of operational risks to develop data-driven risk models that generate accurate and timely information to base sound decisions on. During that time, we have seen and assisted with many of the issues that the early adopters have faced.

A fundamental issue is to have clearly defined linkage between the potential data sources and the real-time and strategic decisions they need to make.

It is useful to visualise the data management process in the layers presented in Figure 1.

Technology already allows the design of data-driven, selfaware, physical assets, whose performance and state of health are being continually and holistically monitored and predicted.

Other key success factors have been to adopt a structured and managed approach, typically having the following attributes in Figure 2, and considering what is possible in the future as well as what they can do now.

The benefits of DA & DM have industry-wide potential, with applications ranging from basic equipment optimisation to enterprise-wide asset performance improvement. However, companies need to understand the value of data and recognise DA & DM as "good investment" vs. "cost of doing business." It is fundamental that they consider questions such as "where are we today, what are the asset management needs, what are the regulatory compliance needs, how can we use data as an asset?"

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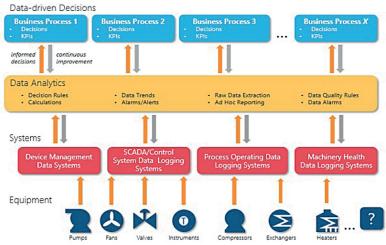


Figure 1 – Data Management Levels (Source – ABS Group)



Figure 2 – Data Analytics Workflow (Source-ABS Group)