



Information Management during the Downturn

Looking at the Options

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Abstract

2020 was a very difficult year for individuals and companies around the world. Covid-19 has affected all aspects of our lives and has impacted the energy sector in a number of ways, most noticeably in falling energy prices due to reduced global demand. The downturn in the industry has led to energy companies reacting by cutting costs, reducing staff, shelving projects, and delaying exploration and development decisions. Because data and information drives everything we do in the industry, including business decisions at all levels, it is important companies continue to invest and look after their data and information assets. Information and data content should be a clear competitive differentiator for energy companies. This paper looks at how energy companies need to react to the downturn and plan for the upturn. Data and information managers should be seizing the opportunity to show that data and information can be instrumental in helping the business achieve its objectives.

Introduction

The recent downturn in the oil and gas industry has been painful for the entire sector. We have seen redundancies, slashed budgets and a dramatic reduction in drilling and other activities. Some predict that oil prices will remain low for a couple of years, others say longer.

Information and data management (IDM) is all too often seen as an overhead that can be cut at times of economic stress, but those of us involved in IDM know that good IDM can make a real difference to the company. IDM is often not considered a core business capability for some energy companies, its often outsourced or under resourced and yet, a number of studies and surveys have highlighted that data (along with people) are the main assets of a company and directly contributes to its success. The challenge is how to convince management that they should be investing in IDM when budgets are tight. When oil prices are high, effective IDM is often given a low priority because it is usually possible to find a person who has (or can find) an answer, but in a downturn, staff are cut and those remaining have less time, resulting in:

1. The person who knows the answer or knows who else to ask is unavailable
2. Taking too long to find data and Information at a time when quick decisions are needed

Investment in improved IDM can bring significant value in this environment and there are several ways to ensure that it is maintained through difficult periods and continues to contribute to business objectives.

Looking at Costs & Value

In difficult economic times IDM departments have to concentrate on the value that they bring to their customers in subsurface, engineering and other functions. Value can be measured using a number of approaches, including cost, income, risk and others, to ensure that only initiatives that provide the greatest value are initiated or continued.

It is essential to consider the overall company strategy and focus on areas that directly impact it. If one of the business objectives is to excel at exploration and find two new major discoveries in the next two years, then the IDM department need to ensure they are addressing that objective and direct their efforts accordingly.

A few simple steps can be taken:

- **Risks** - Run an analysis session on all IDM related risks to understand where the real risks lie and how they can be addressed
- **Costs** - Determine where the highest IDM costs are currently are and how they can be addressed, and cross correlate them with the risks
- **Value** – Concentrating on benefits and value will lead to the identification of opportunities, that, in turn, will lead to innovation
- **Communication** -Talk to the business to see what requirements they have and prioritise them. The valuable and strategically sound items will become apparent.
- **Scope** - We should also be broadening our view to find ways of doing new things that add value in the short and medium term
- **Services** – Review which services your company requires

What can the Industry do?

Collaboration is something of a buzz word at the moment, but it really can help. Most energy companies have similar IDM issues as their peers (access, DQM, governance, etc.), the specifics may be different, but the overall objective will be similar. By collaborating with other operators or with relevant government organisations or service and technology vendors, there should be opportunities to reduce costs through shared knowledge and understanding, as well as providing a basis for long term relationships in the future. The key here is to use the downturn as an opportunity for the IDM community to culturally change, be more collaborative and adopt a different way of dealing with its stakeholders.

For example, the industry could increase value and reduce costs by collaborating in areas such as:

- Access to data and information making better use of NDRs or creating NDRs where they do not exist already.
- Improving sharing and trust between partners and managing data once only (by the operator) and then distributing high quality data
- More use of industry standards and shared standards between operators
- Creating working groups or SIGs to address key industry issues such as Data Quality Management
- Agreeing an industry standard governance model
- Sharing lessons learnt – we have all made mistakes with IDM projects and initiatives that the industry needs to share to avoid the same mistakes being made again.

Innovate

During a downturn senior management will naturally want to focus on improved efficiency. One way to drive that efficiency is to look at new ways of doing things, including new techniques, processes and technologies. Data analytics has a proven track record in many other industries, but to date has had poor adoption in our industry. More integration and organisation of data and use of analytics could provide new insights into issues and problems that the business faces and will be able to shortcut the decision-making process by analysing and reporting of results.

Another way to innovate is to move away from standard data management services such as ‘data loading’. This type of service, whilst saving time and effort for a subsurface user, does not really add any value to the data, the company or the decisions being made. Moving to value-add services, including data integration, data quality management, analytics and master data management will deliver greater business value from data and information management activities.

Plan for a return to ‘Normal’

The downturn provides an opportunity to make some strategic decisions about how you want IDM to work when the economic situation is more sustainable. Organizations will be reluctant to grow internal staff and are likely to make greater use of external resource for limited periods of time. Consideration should be given to using contractors more effectively. Vendors often see similar issues in different companies and so collaboration may also be possible. As with internal resources, when the oil price drops, redundancies occur, and a glut of highly qualified IDM professionals are available. Since contracting rates generally decrease during a downturn it makes sense to hire these professionals to deliver specific pieces of work for specific periods of time.

Prioritise & Seize Opportunities

A number of other areas should be looked at, including prioritisation and seizing opportunities when they arise.

- Existing Investment Value – company's need to try and obtain more value from existing investments in technology and processes. This can be done by increasing utilisation of software products and making them work harder to either get more results or productivity. Many companies have Data Quality Management software that is utilised for very small sets of data. Increasing the data 'footprint' will maximise value without any further technology outlay. The idea is to 'work with what you have'. Utilisation of IDM software, IDM services from third parties, externally derived datasets and consultancy rates are some of the ways in which costs can be reduced.
- Prioritise – it helps if companies prioritise the technologies and services that they really need: to identify what is essential to the company versus the technology and services they find useful. One example maybe that an Information Portal for users to gain access to all their data and information would be deemed essential for the company operations, whilst a data analytics tool may not be deemed essential to running the baseline activities in an E&P company.
- New Investment – in some limited cases it may be worth investing in new technologies because they can provide such huge savings or efficiencies that they have to be a priority. For example, if a company does not have an information portal to access its data and information it means that many people spend large amounts of their time looking for data. This is inefficient and could be resolved by investing in portal technology. In a downturn most companies need to look for efficiencies and savings. One of the ways to do this is to actually invest in IDM. It is up to those involved in IDM to communicate the fact that there is a strong correlation between IDM investment and returns in the form of efficiencies and savings. Articulating the value of IDM during a downturn may mean that substantial change is achieved as its more pressing for a company to change working habits during a downturn.
- Terminate unsuccessful IDM projects – there is often a huge momentum to (often internal) projects that are seen as strategic but are, in fact, just eating up resources and delivering little value. Does the market have a ready-to-go product that does the job at far less cost?

Summary

Energy companies cannot simply stop investing, they still have to create value, they still have to seek new opportunities, they still have to satisfy shareholders and they have to do it safely. IDM plays a clear and essential part in delivering these company objectives. It is clear that the industry and individual companies can influence how IDM is perceived and implemented during an economic downturn. Business focused collaborative working must be at least part of the way forward during the next few years. Clearly, managing data once by the operator, is much more effective than managing it many times (by each company). IDM collaboration with internal and external stakeholders should be our industries' main focus and doing so will enable us to realise key opportunities and set us up for a brighter future.



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