the first step to approach a company and propose an asset swap, rather than a cash transaction. If your owner is a Private Equity company they may appreciate a higher risk in the sale than a company with a wide shareholder base. Understanding your SWOT is key to the next step...

Construct Win/Win proposal. Understanding the transaction partner may come from a study or subscribing to trusted advisors. The flip-side is that the same information is asymmetry - the acquirer’s team may move faster than the mid-cap and more agile companies. 1) build a relationship - hence no information advantage. You will certainly benefit from having this information to establish a basic understanding of transaction partner, but your advantage will come from your ability to add color and facts to the picture that is available to everybody. Capital market presents a general information, governmental websites, news quotes etc. may offer valuable insight into aspects that can help construct a proposal. It may be reserves challenges, portfolio skew, country presence, asset level challenges, country risk, governmental relations...Understanding a transaction partner is Vital. It is however surprising how "limited" view and Risk that does not come from consolidated numbers. A number of information sources may help answer these questions. If the asset is Operated By Others (OBO) the same answers must be answered, and in addition consider if the asset is a priority asset in the Operators context. A Development. The information to assess and understand other operator is available, from unstructured data sources containing joint operating agreements, commercial agreements, budgets, reports, and historical information that can be viewed. The challenge is the assumption that the data represents undisputable facts – “one truth”. As an example, Is the data used to provide our portfolio – such as production profiles, reserves growth projections, investments, budgets etc. credible and reliable? If you want to nominate candidates for divestments – under capital constraints – would you consider aspects such as: Assets history of delivering on promise; Production, OpEx, cost improvement, improved recovery, facility integrity, commercial agility. What about the asset team – dedication to one/many assets – experience related to challenges or turnover/stability. You want to see the potential Upsides, Downsides and Risks that does not come from consolidated numbers. A number of information sources may help answer these questions.

Understand Internal Portfolio situation – should be considered basics. Working with Business Development and Portfolio Managers has taught me that the reality is different. Most oil companies have applications or databases that can aggregate a portfolio view for all fields, where production resources can be viewed. The example is the assumption that the data represents undisputable facts – “one truth”. As an example, Figure 3, illustrates a A Cognitive Analytics tool may also continuously scan new sources to identify challenges. For example, Figure 3, illustrates a Cognitive Analytics tool that discovers connections among Organizations, Companies and People. The “Topics” analysis shows the most frequent keywords, the map shows where data is captured and the data sources (news feeds) where the data originates from.

Lessons Learned. The final aspect of succeeding in any game – is to learn from history, whether even success or failure. Even Cognitive Analytics cannot help you improve if you do not assess yourself. Conducting a "post deal review" should be mandatory and comprehensive. Did the transaction meet our expectation and valuation, reward and risk? If yes – No – above/below - then why?

A review will provide valuable insight into the suitability of their decision making process, stage gates – and become a valuable addition to the data made available to your Cognitive systems. It may turn up as a valuable "relevant analogy for a new opportunity." While it is hard to predict future oil prices, and for how long Exploration will remain in the shadow of trading – it is not hard to predict that the companies with an information advantage will end up in a better position. My curiosity is whether the supermajors will move faster than the mid-cap and more agile companies. It will also be interesting to see how organizations ignoring new analytics technology will face the “information disadvantage” – and try to defend their position.

Why Are Reservoir Forecasts So Optimistic?

An SPE paper by Nandualdeo and Wallace (2011) reported that petroleum industry forecasts produce on average only 75% of the oil and/or gas forecast at the time of project sanction. For those projects that the author attributed the production shortfall to reservoir “issues” (as opposed to well, facilities, or “other” issues), the average project produced only about 55% of the forecast volumes. They highlighted possible sources of forecast optimism including optimistic subsurface assumptions, failure of internal assurance processes, and the lack of accountability for production volumes including project decision look-backs. Rayjyani et al. (2012) also highlighted the tendency of production forecasts to be optimistic and supported possible sources including unrealistic subsurface assumptions, reservoir modeling limitations and human bias. Murphy et al. (2011) noted that the industry tends to make project decisions based on insufficient “Basic Data” and that technical teams understanding of their “Basic Data” is limited by their “misplaced confidence” that they understand a reservoir based on nearby producing fields.

Several possible contributors to forecast optimism were highlighted in the talk including the potential impact of (1) sparse data; (2) geological modeling parameters such as the semivariogram range; (3) geological model up-scaling; (4) dynamic model grid parameters; (5) well location optimization workflows; and, (6) volumes and forecasts; and, (4) increased use of independent external peer reviews to reduce project team human bias.

References