

How to Assess Supplier Flexibility?

By

Peng Bi

and

Remya Pushpangatha Kurup

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Abstract

The oil and gas industry is very volatile; it is characterized by unpredictable cycles of sharp rises and plunges in oil prices. This cyclical nature presents a huge challenge for companies that are operating in the industry. Companies have to be able to ramp up their production quickly so that they have enough capacity to meet increasing demand when oil prices go up and be able to survive when oil prices go down. In this context, companies have to make sure that their suppliers are flexible to changing demand. Assessing supplier flexibility is one of the major challenges facing our thesis sponsor company, which is one of the largest oil field services companies in the world. Our project has two primary goals. First we would like to develop a sound understanding of common factors that characterizes flexibility of suppliers in oil and gas industry. Second, we would like to develop the first version of a self-administered auditable instrument to assess the flexibility of suppliers. We developed a comprehensive list of factors influencing flexibility of suppliers through systematic literature review and interview research methodology. We then designed a survey to validate the flexibility factors using statistical measures. Finally, we developed the first version of a self-assessment instrument using Microsoft Excel. The instrument would help our thesis sponsor company to assess the flexibility of their supply base. The findings of our research would be useful to companies operating in seasonal and cyclical industries. The research might help companies develop insights regarding flexibility of their suppliers to adapt to changing market demands, and develop strategies to balance supply and demand at minimum cost.

Thesis Supervisor: Dr. Roberto Perez-Franco

Title: Research Associate, Center for Transportation & Logistics
Director, MIT Supply Chain Strategy Lab