9th Edition
Advanced Project Management for the Oil and Gas Industry
Surviving the Downturn - Addressing the Primary Concerns to Reduce Operating Costs and Managing Better Resources.

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Pestana Chelsea Bridge Hotel; London, United Kingdom
About Oliver

Oliver F. Lehmann, MSc, PMP

- Born 1957, married, 4 children, 2 grandchildren
- University studies in Stuttgart, Liverpool
- Degrees:
  - Master of Science in Project Management
  - Project Management Professional (PMP)
  - Connective Leadership Institute – Certified Associate (CLI-CA)
- PM Practitioner since ~1983
- Trainer since 1995 with assignments in Europe, Asia, and USA
- Adjunct Professor at Technische Universität München
- Active at the Project Management Institute (PMI®)
  - Member since 1998
  - Volunteer in various roles since 2001
  - President of the PMI Southern Germany Chapter e.V.
About Oliver

Publications

• Book

Oliver F. Lehmann

Situational Project Management
The Dynamics of Success and Failure

• Papers
Situational Project Management in Complex O&G Supply Networks

Contents:

• Situational Project Management
• Complex Supply Networks
• The Challenge in Oil & Gas
• Case Study: A Rolling Award Fee Contract
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# Situational Project Management

## Two Approaches to Project Management

<table>
<thead>
<tr>
<th>Basic assumption</th>
<th>“There are practices that lead to success in every project.”</th>
<th>“A practice that was successful in a project may fail in another one.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectations on practitioners</td>
<td>Mastership of the “best practice”</td>
<td>Mastership of various practices</td>
</tr>
<tr>
<td>Practice applied</td>
<td>The “best practice”</td>
<td>The situationally most favorable practice</td>
</tr>
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Situational Project Management

A Primer on Situational Project Management (SitPM)

- Free at PM World Journal
- Describes the development of a typology of projects

www.pmworldjournal.net/article/introduction-typology-projects
Conclusion

Oil and gas companies should develop broadbased skills for Situational Project Management.
Situational Project Management in Complex O&G Supply Networks

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Challenges for Supply Networks in Projects

• Traditional: Simple multi-tier supply chains
Complex Supply Networks

Challenges for Supply Networks in Projects

• Today: Complex, dynamic and often confusing supply networks
Challenges for Supply Networks in Projects

- A problem in supply networks: Collaborative vs. competitive behavior
Oil and gas companies must manage complexity and dynamics in modern supply networks.
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The Challenge in Oil & Gas

The Specific Challenge for Supply Networks in Oil and Gas

- The need for oil and gas will remain for a long time.
- The businesses must however respond to:

- Low prices -> reduced input of financial resources
- Difficulties to lure young talents
- Societal hostility towards Oil & Gas companies
- Race for high-speed development of disrupting technologies
- Hazards -> Managing them more complex and expensive
- Isolationism and climate change impacting the demand
The Challenge in Oil & Gas

The Market is Difficult

• We have enough fossil sources, but what about the demand?

“The Stone Age did not end for lack of stone, and the Oil Age will end long before the world runs out of oil.”

Sheikh Ahmed Zaki Yamani
Saudi Arabian Oil Minister (1962 to 1986)
The Challenge in Oil & Gas

Reduced Input of Financial Resources

• The masterminds of technological change are dedicated to further reduce the consumption of fossil energy sources.

Trump’s Business Council Is a Who’s Who of Renewable Energy Investors and Climate Champions

From BlackRock to General Motors to Wal-Mart, the members of Trump’s business council are all in on renewables.
Reduced Input of Financial Resources

- Development of the Oil Price 2012 – 2013
- Brent Crude, price development per March 13, 2017
The Challenge in Oil & Gas

Reduced Input of Young Talent

- Where do O&G firms rank in “Forbes 100 Best Companies to Work For”? (USA)?

**Top 10**

1. Google
2. Wegmans Food Markets
3. Boston Consulting
4. Baird
5. Edward Jones
6. Genentech
7. Ultimate Software
8. Salesforce
9. Acuity
10. Quicken Loans

**O&G Companies**

37. NuStar Energy
41. HilCorp
Reduced Input of Young Talent

• Where do high potentials desire a future career?
## Today’s Challenges for Supply Networks in Projects

- **Force Field Analysis:** Project managers in O&G must respond to challenges.

### Restraining Forces
- Resistance from society + politics
- Unrealistic investor expectations
- Increasing technical risks
- Shortage of resources

### Driving Forces
- Organizational effectiveness
- Team spirit across supply networks

### Force Field Analysis Table

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<th>Driving Forces</th>
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<tr>
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<td>Unrealistic investor expectations</td>
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<tr>
<td>Increasing technical risks</td>
<td>8</td>
</tr>
<tr>
<td>Shortage of resources</td>
<td>7</td>
</tr>
<tr>
<td>Organizational effectiveness</td>
<td>6</td>
</tr>
<tr>
<td>Team spirit across supply networks</td>
<td>5</td>
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</table>

The Challenge in Oil & Gas
Conclusion

Oil and gas companies cannot survive with dysfunctional supply networks.
Situational Project Management in Complex O&G Supply Networks

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A Case Study of 2 Companies

- **Customer:** Spider Corp.*
  - Upstream O&G producer
- **Contractor:** Red Ant, Inc.*
  - On-site engineers
  - Selected after competitive IFB over an online B2B platform purely on price and references named

*: Names changed
Case Study

Dissatisfaction with the Contractor

- Poor communications
- Sluggish and incapable workers
- "Runs too many projects at a time"
- Work left unorderly and unfinished
- Frequent need for rework
- Poor documentation
- Equipment in poor condition
- Slow execution of task orders
- Inefficient use of resources
- Safety hazards from shortcuts in execution
- Safety hazards from shortcuts in execution
- Surprising cost overruns (T&M)
- A perception of being blackmailed
- Aggressive behavior against customer staff
- Delays of work completion

*: Time and material
Case Study

Dissatisfaction with the Customer

- Poor communications
- Late payments
- "Runs too many projects at a time"
- Scapegoating on contractor
- Unclear interfaces to other contractors
- Aggressive behavior against contractor staff
- Safety hazards for contractor’s workers
- Inefficient use of resources
- Unpaid rework to fix customer’s mistakes
- A perception of being blackmailed
- Late and incomplete provisions
- Unclear task orders
- Site in poor condition
- Poor requirements specification
- Delays of work starts
Case Study

Root Cause Analysis

- **Red Ant, Inc. (the contractor)**
  - Had offered rates that do not cover the costs incurred by quality work.
  - Prioritizes other customers, who pay higher prices.
  - Avoids any communications and documentation that could be used against them in a lawsuit.

- **Spider Corp. (the customer)**
  - Has a shortage of staff to support the contractors.
  - Communicates the dissatisfaction in a demeaning style and language.
  - Threatens the contractor with legal action.
  - Avoids any communications and documentation that could be used against them in a lawsuit.
Case Study

Vicious Circle Effects

- Budget overruns
- Safety hazards
- Rework
- Delays

Poor communications
No cross-company team spirit
Misunderstandings on requirements
Poor work results
Ineffective work coordination

Poor work results → Ineffective work coordination → Misunderstandings on requirements → No cross-company team spirit → Poor communications
The Total Cost of Ownership (TCO) of the business was impacted by the problems more than what was saved from the low T&M rates.
Case Study

A Solution Workshop

- Development of a “Mission Success First” culture
- Move focus from multiple business interests to common project interest.
- Re-negotiating the contract.
- Adding an award fee clause to the T&M* contract.
- The award fee is based on monthly assessments.
- The award fee is also paid monthly.
Award Fee Contracts*

- The seller is reimbursed for all legitimate costs.
- The majority of the fee is earned based on the satisfaction of subjective performance criteria incorporated into the contract.
- The determination of the fee is based on the subjective determination of seller performance by the buyer. Generally not subject to appeals.

- Prerequisites
  - Parties are willing.
  - Provision of a formal budget (taken from the TCO savings expected)

- Advisable
  - A third party person as a mediator
  - Helping parties “getting over it”.

Weighted Assessment

• Performance criteria developed with internal team and contractor
  - Ideal number: 5 to 7 criteria
  - Maximum: 10 criteria

• Each criterion has
  - Weight: 1 to 10
  - Rating: 1 to 10
  - Score = Weight × Rating

• A simple system was installed for
  - Quick assessment at the end of the month, whether the award fee will be paid.
  - Provide an internal appeal mechanism, if the contractor feels that a decision is unjust.

• The assessment system is reviewed every three months for appropriateness and completeness.
Case Study

Weighted Assessment

• A passing score is assigned to the total score.
• The award fee gets paid for every month, when the score has been achieved.
• The award fee gets not paid, when the score has not been achieved.
Benefits

• Good work by the contractor saves the customer money. The contractor receives a share of that.

• The contractor receives immediate performance feedback from the customer.

• The contractor knows where to improve.

• Paid award fees provide the contractor with financial resources needed for a better service.

• The contractor-side project manager has a business case for the support of a “Mission Success First” culture.
Case Study

“Mission Success First”
Oil and gas companies need systems that help develop a “Mission Success First” culture in their projects. The Rolling Award Fee contract is an example for that.
Questions?
Case Study

Thank you!

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