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| KLM Technology Group<br>#03-12 Block Aronia,<br>Jalan Sri Perkasa 2<br>Taman Tampoi Utama<br>81200 Johor Bahru<br>Malaysia | <h1>Contracting Strategy of a Project</h1>   |               |

## Contracting Strategy of a Project

Karl Kolmetz  
 KLM Technology Group

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## **Contracting Strategy of a Project**

### **Introduction**

Some Project Management definitions;

1. A temporary endeavor undertaken to create a unique product or service
2. An undertaking with an established starting point and defined objectives - the achievement of which signifies the conclusion of the project
3. The application of knowledge, skills, tools, and techniques to a broad range of activities in order to initiate, plan, execute, monitor and close down a project in a controlled manner

There are several Contracting Strategies of a Project. The contracts include Lump Sum Turn Key (LSTK), Reimbursable Cost (RC), Modified Lump Sum (MLS), and Project Management Consultants / Coordination (PMC). There is no one size fits all, each one has its best application.

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### **Lump Sum Turn Key (LSTK)**

LSTK is the best model for large project (greater than USD 200.0 million) with very well defined scopes. Typically you would do a Front End Engineering Design (FEED) Study to develop the scope and the Instruction or Invitation to Bidders (ITB). A FEED Study and ITB might take several months to develop.

One should not allow the FEED Study Engineering Company to then bid on the LSTK project, as this builds in a conflict of interest in the FEED Study and ITB.

The ITB is then send to the LSTK contractors to review and bid. This normally takes at least four weeks on a larger project. The LSTK Contractors will send information to the vendors to quote on the equipment, and they will use their data base of construction information to estimate the construction cost.

The LSTK Contractor will then submit their bid to the Owner. Typical cost they will include is;

|                         |        |
|-------------------------|--------|
| Engineering             | 10-15% |
| Equipment / Procurement | 40-60% |
| Construction            | 40-60% |
| Contingency             | 10-15% |
| Profit                  | 10-15% |

Included in the Equipment and Construction is the Project Management associated cost which could be greater than 10%.

#### **Positives of LSTK**

1. The owner can reduce the amount of Internal Company Project Management. You will pay for Internal Project Management, even if you choose not to hire Experienced Project Managers. You will pay the hidden cost of plant reliability, efficiency and project quality. Do not expect quality if you do not inspect for compliance.
2. The contractor assumes some of the risk of the Project.
3. The contractor has an incentive to finish the project before the schedule.

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#### Negatives of LSTK

1. There is the potential for the contractor to make 30% profit, which is the profit plus contingency if the project is managed well.
2. There is the potential for change orders, which have a 50% profit margin if the ITB is not properly written.
3. Typically LSTK contracts do not include Commissioning or Operational Cost (OPEX) such as catalyst, solvent and chemicals.
4. It is understood that the LSTK Contractor's Project Manager's goal is to maximize the profit of his current contract, and his bonus is directly linked to his company's profitability. Therefore the way to maximize profitably is to build as low cost as possible while meeting the contract specifications and company's project quality inspections.

#### Reimbursable Cost (RC)

Reimbursable Cost is a contract where all actual cost of the project are reimbursed to the contractor by the owner, typically at a fixed overhead cost. The fixed overhead cost can range from 5 to 15% based on the economic cycle.

Reimbursable Cost include

1. Project Management
2. Engineering
3. Procurement
4. Construction
5. Commissioning and Operational Cost

Positives of Reimbursable Cost

1. May be the best when there are many unknowns in the project.
2. Limits the profit margin of the Contractor.

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#### Negatives of the Reimbursable Cost

1. Schedule at risk - the longer the project the higher the profit of the contractor
2. Increased need for Internal Company Project Management
3. The contractor has an incentive to spend more, thereby raising his total profit.

#### **Modified Lump Sum (MLS)**

Modified Lump Sum is categorized by lump sum compensation to the Contractor for part of the scope of work, and reimbursable cost compensation for the remainder. Modified Lump Sum contracts are appropriate where certain portions of a job contain more risks than is suitable / acceptable for lump sum contracting.

#### Positives

1. Best for project that have good ITB for some parts and poor ITB for other parts.
2. Contractor assumes part of the project risk for the Lump Sum Portion

#### Negatives

1. Contractor may try to shift parts of the Lump Sum Scope to the Reimbursable Contract.
2. Increased need for Company Internal Project Management.

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### **Project Management Consultant / Coordination (PMC)**

Project Management Coordination is when an experienced third party Project Management Team is hired by the company to execute the project. A Project Management Team should be led by Senior Managers that have at least ten projects in their career.

As mentioned previously the Contractor's Project Manager has numerous project in his career, and is paid by the Contractor, therefore he has the Contractor's best interest at heart. To create a team of people with limited project experience to work with the Contractor's Senior Project Manager will cost your company money and project quality.

Most Major Corporations have internal Project Management Teams that move from Project to Projects to protect the Corporation's best interest. For a small company to hire a PMC is the best for a small project (less than USD 100.0 million).

The PMC can bid the Engineering, Procurement and Construction with the best contract strategy for the company.

#### Positives of PMC

1. Best for Small Projects
2. Chooses the best contracting strategy for each part of the project.

#### Negativities of PMC

1. You are only as good as the team you hire. It is like football – you need some stars to win.

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### **Conclusions**

Consider the best contracting strategy for your project. No one size fits all. Also consider that you will pay for good or bad Project Management. If you hire Experienced Project Managers you will pay them a cost, with the increased benefits to your project. If you choose not to hire Experienced Project Managers you will also pay, but it will be the hidden cost of plant reliability, efficiency and project quality.

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