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Destron Petroleum Services: bidding for a project

Saadia Irfan wrote this case solely to provide material for class discussion. The author does not intend to illustrate either effective or ineffective handling of a managerial situation. The author may have disguised certain names and other identifying information to protect confidentiality.

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It was July 27, 2016 when, after a long commercial bid opening session, Imran Khan, country manager of Destron Petroleum Services (DPS) for Pakistan, and his team of four members left the conference room at oil producing company Indo Gas Corporation Ltd.’s headquarters, almost running in sheer nervousness. When they reached the lobby downstairs, Khan threw his bag on the coffee table, quickly unpacked his laptop, and did some quick rough calculations. After several minutes of silence, Khan finally announced cheerfully, “We made it guys!” It was a moment of relief, happiness, self-achievement, and pride for all. Things were going to change now for the oil drilling contractor DPS. Inevitably, Khan immediately began to think about the million things that could go wrong and about how he would handle them. On his way back home, he sent a one-line message to all of his team members, telling them to be ready to gather for a meeting the very next morning.

Background

DPS provided well drilling services worldwide for the oil and gas industry. It employed 12,000 people of different nationalities and operated in 40 countries. The company initially set up its operations in Pakistan in 2011 with three rigs—two American rigs (costing $13 million[[1]](#footnote-1) each and bought in 1972) and one Chinese rig (costing $38 million and bought in 2006). Of these three rigs, two were continuously employed while the third was stacked in a private yard through 2015. The two operating rigs were making only meagre earnings before interest, taxes, and depreciation to revenues percentages of 8 per cent and 11 per cent. In addition, because one of its three rigs was non-operational, DPS was incurring significant costs in terms of lost revenues.

On July 5, 2016, Indo Gas Corporation Ltd. invited all oil drilling contractors in Pakistan to bid for a well drilling project at one of its concessions. At the time of sending out the tender, Indo Gas Corporation Ltd. did not indicate the exact location of the potential project; this was the norm in the industry. In response to the invitation, eight major drilling contractors in the country submitted their bids, from which DPS was chosen for a four-year contract.

From mid-2014, oil prices had started declining due to a significant increase in oil production in the United States and declining demand for oil in the emerging countries. By February 2016, oil prices were below $30 per barrel (a drop of almost 75 per cent since mid-2014), which triggered a wave of cost reduction initiatives among oil producing companies all over the world. These companies cut down on the production of oil and engaged in massive layoffs.

An obvious consequence of cutting down on oil production was a decline, too, in demand for oil well drilling services. Hence, at DPS, each international region was faced with an increasing number of stacked rigs. However, with DPS in Pakistan winning the contract at Indo Gas Corporation Ltd. during such a historically difficult time, it appeared the trend was the opposite in Pakistan’s case. The chief executive officer of DPS described this success at the company’s annual meeting in Dubai, saying, “We are confident that this project will put us on the path of profitability and also ensure DPS’s long-term viability in Pakistan.”

Indo Gas Corporation Ltd. and the bidding process

Indo Gas Corporation Ltd. owned concessions all over Pakistan, each ranging in size from 30 to 80 square kilometres. The oil producing activities at Indo Gas Corporation Ltd. occurred in six different phases:

1. Surveying and mapping to identify areas where oil and gas may have accumulated.
2. Identifying the best location to drill an exploratory well to test for the formation of hydrocarbons.
3. Drilling exploration wells (also known as “wild cats”) in order to, first, determine where oil and gas were present and, second, to measure the area and thickness of the oil- and/or gas-bearing [reservoir](https://teeic.indianaffairs.gov/glossary/glossary.htm#323). “Appraisal wells” could also be drilled if exploratory wells were successful to establish the extent and size of oil and gas deposits. Finally, “development wells” were drilled in order to extract the oil and gas.
4. [Logging](https://teeic.indianaffairs.gov/glossary/glossary.htm#110) and coring wells to measure [permeability](https://teeic.indianaffairs.gov/glossary/glossary.htm#320), [porosity](https://teeic.indianaffairs.gov/glossary/glossary.htm#322), formation pressure, and other properties of the encountered geologic formation(s).
5. Completing wells deemed capable of producing commercial quantities of [hydrocarbons](https://teeic.indianaffairs.gov/glossary/glossary.htm#93).
6. Installing treatment plants to transfer the oil to refineries.

For the purpose of drilling the exploration well (the third phase) and the subsequent appraisal and development wells (if any), Indo Gas Corporation Ltd. required the services of a drilling contractor and, therefore, sent contractors an invitation to tender a bid. The invitation was normally communicated through media such as newspaper, email, and websites, or through a bank. Of these options, Indo Gas Corporation Ltd. chose the newspaper.

The invitation to tender contained detailed information on the scope of the work involved and the requirements of the job. The tender was broken down into two parts—the technical bid and the commercial bid—and clearly stated the date and time of the submission deadline to ensure transparency.

At the time of submission, all bidders were required to sign a “bid bond” of six months. Under the bid bond, in the case that the bidder was not able to start the project, the bidder had to pay a sum of $120,000 to the client.

The project

The project was to be started on October 1, 2016. It was related particularly to the provision of a 2,500 horsepower (5,000 metres’ depth) land drilling rig. The term of the project was four years, and this was extendable upon mutual consent. However, the firm commitment for engagement of the rig was three years, at the agreed rates.

Among the other requirements of the contract were the following:

* DPS was required to furnish a performance guarantee with respect to its obligations under the contract for an amount equal to $200,000 (valid one month after the contract’s expiry).
* If DPS failed to commence spudding[[2]](#footnote-2) within the client’s specified days, it had to pay liquidated damages of $15,000 for each day of delay, up to a maximum of $500,000.
* Liquidated damages of $10,000 per day were also to be paid if the well-to-well move was delayed beyond the client’s specified days due to a fault attributed to the contractor.

In order to calculate the total cost of the job, a Bid Summary Analysis (BSA) was to be prepared. Although DPS’s accountant and business development manager took the lead in preparing the BSA, inputs from all departments at DPS (operations, maintenance, supply chain, human resources, finance and accounts, business development, legal, and health, safety, and training) were incorporated. For all practical purposes, DPS assumed no liquidated damages throughout the term of the contract. The rig was to be offered in its current position, which meant that no overhaul of the existing rig was needed.

The inventory at DPS included consumable parts necessary for the repair and maintenance of equipment. For inventory management, DPS used a “threshold inventory quantity” system. Using SAP (systems, applications, and products) inventory management software, DPS tracked inventory levels by setting threshold levels, and once inventory reached those levels, the inventory replenishment procedure was implemented. The supply chain department had given an estimate of $850,000 as the maximum inventory level and $83,500 as the threshold inventory level. A physical count in the warehouse at the headquarter building and the balance in SAP both revealed that DPS already held the maximum inventory level. Each year, an inventory amount equal to $766,500 was to be ordered. After the commencement of the project, the inventory was to be stored in a warehouse at the rig site, and the warehouse costs included the supervisor’s salary and utility bills—costs estimated to be $23,725 in the first year and to rise at a rate of 10 per cent thereafter.

The freight charges related to inventory transportation were estimated to be $50,150 per year, while the custom duties on inventory and on equipment from abroad were estimated to be $98,550 per year. The transportation cost for repair and maintenance was estimated to be $47,450 in the first year and this was expected to rise by 2 per cent thereafter.

It was projected that there would be three well-to-well moves (each having an expected duration of 11 days) each year. During a well-to-well move, the company was to incur additional costs of $13,000 per day in the form of payments to rig movers; therefore, the day rate during the well-to-well move was quoted to be 140 per cent of the operating day rate.

The operations team was assigned the responsibility of mapping the required equipment (specified in the invitation to tender) with the existing equipment held by DPS. Part of the rig equipment was also the camp, which had the capacity to accommodate 170 individuals. After careful mapping, it was revealed that DPS had sufficient equipment (see Exhibit 1) except for part of the rotary equipment. The expected total cost (including freight, duties on initial equipment mobilization, equipment inspection costs, pre-commencement crew requirements, and office set-up) of the additional equipment was $50,000, and its expected useful life was 14 years.

The rig equipment was to be insured at an expected premium of $49,640 per year. The inspection cost of the tubulars was estimated to be $148,600 in the first year, which was expected to rise by 10 per cent every year thereafter. DPS was to generate its own electricity for running the equipment, while the fuel (costing approximately $10,000 per day) was to be provided directly by the client.

DPS had two groups of personnel—the rig staff and the support staff. Salaries for the support staff (see Exhibit 2) and rig staff (see Exhibit 3) were expected to increase by 10 per cent each year. The head office building was rented at a cost of $11,000 per month and the expected utility expenses of the head office were projected to be $4,400 per month in the first year. After the commencement of the project, there were to be three operational rigs; therefore, the support staff costs, head office rent, and utility expenses were to be distributed among all three of them equally.

DPS would enter into a three-year agreement with a local vendor to outsource the catering, at a rate of $1,800 per day. This rate would increase by 5 per cent per year. The safety and training department had put forward an estimated incremental cost of $65 per day for each of the three years. Similarly, the extra costs of guest housing as a result of commencing this project was estimated to be $105 per day for each of the three years.

DPS planned to rent a coaster bus for transferring employees from the point of arrival (airport, train, or bus station) to the rig site. It also planned to rent a crane, forklift, and centrifuges. The total rental cost for all items was expected to be $820 per day. In addition, DPS anticipated that miscellaneous costs of the project would amount to $188,750 each year.

The terms of reference in the contract specified that the client was to pay the expected mobilization fee, but the expected demobilization fee of $2,922,335 would be borne by DPS. To start the project, DPS estimated that mobilization of the rig from the stack yard to the site would take 30 days and that the expected cost would be $582,580. Keeping a margin of 32.6 per cent, DPS quoted a mobilization fee of $772,501.

After taking into account the projected costs, DPS quoted an operating day rate of $22,000, and the contract required the day rate to remain constant during the firm commitment of the project. When asked what factors led to determining the exact day rate and mobilization fee, the accountant replied that at DPS they first calculated the total projected costs of the project, then set a price (day rate and mobilization fee)—keeping in mind the target earnings before interest, taxes, depreciation, and amortization, and then finally used competitor intelligence to make sure that the set price was not higher than that of competitors. The exact prices quoted by the competitors were obviously unknown at the time of preparing the BSA. However, the managers could get a fair idea by looking at past rates and ongoing rates in the industry in the same country.

DPS assumed that all cash flows occurred at the end of each month. The projected cost of capital was 11 per cent and the tax rate was expected to be 32 per cent. What was the projected cost and NPV of the project? What ethical issues could have risen during the bidding process?

Exhibit 1: Details of the equipment

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description** | **Original**  **Cost (US$)** | **Salvage**  **Value (US$)** | **Original**  **Life Years** | **Remaining**  **Life Years** |
| Rotary | 27,000,000 | 5,420,000 | 20.0 | 11.5 |
| Camp and Rolling Stock | 3,610,000 |  | 12.0 | 3.5 |
| Tubular | 2,328,087 |  | 5.0 | 1.5 |
| Fully Depreciated Tubular | 5,061,913 |  | 5.0 | 0 |
| Total Value of Existing Equipment | 38,000,000 |  |  |  |
| **Additional Equipment** | | | | |
| Rotary | 50,000 |  | 14.0 | 14.0 |
| **Total** | **38,050,000** | **5,420,000** |  |  |

Source: Company documents.

Exhibit 2: Daily projected salaries for Support Staff in the first year (in us$)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Position** | **Salary Cost** | **Bonus** | **Others** | **Travel Cost** | **Cost per Day** |
| Supply Chain | 860.00 | 70.50 | 0 | 52.50 | 983.00 |
| Operations | 228.50 | 20.25 |  | 26.25 | 275.00 |
| Maintenance Support | 228.50 | 20.25 |  | 26.25 | 275.00 |
| Finance and Accounts | 472.50 | 37.50 | 0 |  | 510.00 |
| Human Resource | 455.00 | 27.00 | 0 |  | 482.00 |
| Business Development | 380.00 | 60.00 | 0 |  | 440.00 |
| Health, Safety, and Training | 280.00 | 30.00 |  |  | 310.00 |
| Legal | 180.00 | 15.00 |  |  | 195.00 |
| **Total** |  |  |  |  | **3,470.00** |

Source: Company documents.

Exhibit 3: Daily Projected Salaries for Rig Staff in the first year (in US$)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Position** | **Total Personnel** | **Salary Cost** | **Crew Travel** | **Bonus** | **Personal Taxes** | **Cost per Employee per Day** | **Cost per Day** |
| Rig Superintendent | 1 | 290.00 | 35.00 | 0.00 | 32.00 | 357.00 | 357.00 |
| Senior Tool Pusher/Tool Pusher | 2 | 265.00 | 40.00 | 27.00 | 125.00 | 457.00 | 914.00 |
| Night Tool Pusher/Tool Pusher | 2 | 210.00 | 8.00 | 20.00 | 0 | 238.00 | 476.00 |
| Driller | 4 | 160.00 | 8.00 | 12.50 | 0 | 180.50 | 722.00 |
| Assistant Driller | 4 | 53.00 | 8.00 | 3.08 | 0 | 64.08 | 256.32 |
| Derrickman | 3 | 23.00 | 4.00 | 1.80 | 0 | 28.80 | 86.40 |
| Floorman | 12 | 20.00 | 4.00 | 1.17 | 0 | 25.17 | 302.04 |
| Roustabout | 12 | 12.00 | 4.00 | 0.92 | 0 | 16.92 | 203.04 |
| Rig Electrician | 2 | 215.00 | 32.00 | 19.83 | 94.00 | 360.83 | 721.66 |
| Assistant Electrician/  Junior Electrician | 4 | 38.00 | 4.00 | 2.50 | 0 | 44.50 | 178.00 |
| Rig Mechanic | 2 | 216.00 | 36.00 | 22.00 | 94.00 | 368.00 | 736.00 |
| Assistant Mechanic | 2 | 38.00 | 4.00 | 3.00 | 0 | 45.00 | 90.00 |
| Motorman (Mechanical) | 3 | 19.00 | 4.00 | 1.60 | 0 | 24.60 | 73.80 |
| Welder | 2 | 16.00 | 4.00 | 1.80 | 0 | 21.80 | 43.60 |
| Crane Operator | 3 | 18.00 | 4.00 | 1.80 | 0 | 23.80 | 71.40 |
| Forklift Operator | 3 | 15.00 | 4.00 | 2.20 | 0 | 21.20 | 63.60 |
| Driver | 3 | 12.00 | 4.00 | 1.50 | 0 | 17.50 | 52.50 |
| Doctor | 2 | 24.00 | 8.00 | 3.00 | 0 | 35.00 | 70.00 |
| Radio Operator | 2 | 15.00 | 4.00 | 3.00 | 0 | 22.00 | 44.00 |
| HSE Advisor/STC | 2 | 22.00 | 8.00 | 3.00 | 0 | 33.00 | 66.00 |
| Warehouse Employee | 2 | 26.00 | 8.00 | 3.00 | 0 | 37.00 | 74.00 |
| **Total** | **72** | **1,707.00** | **235.00** | **134.70** | **345.00** | **2,421.70** | **5,601.36** |

Note: HSE = health, safety, and environment; STC = safety and training coordinator.

Source: Company documents.

1. All currency amounts are in U.S. dollars unless otherwise specified. [↑](#footnote-ref-1)
2. To spud meant to make the initial drilling for the oil. [↑](#footnote-ref-2)