

# Bolter Turbines, Inc. Negotiation Simulation

John L. Graham

*Principles of effective negotiation and negotiation skills are seldom part of the curriculum in business schools. This article describes a business negotiation simulation involving the purchase of capital equipment. The exercise includes three buyer and three seller roles and bargaining over several issues—pricing, product and service options, and terms and conditions. The simulation provides an excellent context for experiential learning and practical discussion of business negotiations.*

Negotiation is the most frequent means of resolving conflicts between organizations. Particularly in industrial marketing, when "big-ticket" and/or high technology products are involved, sales are most often negotiated. Yet principles of effective negotiation and negotiation skills are seldom part of the curriculum in business schools. The Bolter Turbines, Inc. (BTI) Negotiation Simulation has been developed specifically to provide a context for experiential learning and practical discussion of business negotiations. Through the simulation and associated debriefing, participants are familiarized with the complex bargaining issues, strategies, and pressures typical of relationships between industrial firms.

The presentation of the BTI Negotiation Simulation to follow is divided into five parts. First, the simulation is briefly described. Next, instructions for participation and administration are detailed. Third, instructions for debriefing are outlined. Fourth, variations in the use of the game are suggested. The last section, the appendix, consists of the student materials.

## A BRIEF DESCRIPTION OF THE SIMULATION

The simulation and debriefing can be accomplished during a four-hour period. Two two-hour sessions are ideal. The BTI Negotiation

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Simulation involves a final sales negotiation between two industrial companies. The product is a \$3 million natural gas compressor set for installation on an off-shore gas platform.

Six representatives of three firms are participating in the discussions: (1) a sales representative, a regional sales manager, and an applications engineer from Bolter Turbines, Inc.; (2) a purchasing agent and a production engineer from the client firm, Maverick Natural Gas, Inc.; and (3) a consulting design engineer working with the Maverick group, but employed by PARTEX and Associates Construction Company. Each participant has somewhat different (and in some cases conflicting) personal and professional motives regarding the deal. For example, the PARTEX consultant believes the recuperator, a Bolter product option, to be very important. Alternatively, the Maverick production engineer considers it to be an unnecessary frill.

Previous to the negotiation, BTI has submitted a price quotation for the gas compressor set, including several product options and Bolter's standard terms and conditions. The Maverick purchasing agent has established certain purchasing objectives which would require substantial concessions from BTI. Both sides are supplied with similar amounts of information about various environmental constraints (e.g., time schedules, market conditions, etc.). Additionally, each side has been instructed to come to an agreement during this meeting. The final agreement will consist of a completed purchase agreement, signed by representatives of both companies.

## INSTRUCTIONS FOR PARTICIPANTS

There are six roles to be played in the simulation (see the appendix): three for the Bolter sales team and three for the Maverick purchasing team. Groups of six students (smaller groups also work) are given the appropriate materials, and the three Bolter representatives are sent to a different location to plan bargaining strategies. The role-playing instructions are self-explanatory; however, a few questions of clarification should be anticipated. The Bolter team is instructed to return at the end of the 30 minutes (*30-minute time limit for negotiation preparations*) and begin the sales discussions.

The bargaining session is limited to one hour. If facilities allow, private intra-team conferences are permitted. In any case, the *60-minute time limit for bargaining* is strictly adhered to. The simulation is complete when the final contract terms are specified and approved by the appropriate representatives of both firms (the form is included in the Bolter sales representative's materials). Usually bargaining is concluded very near the end of the time limit.

## DEBRIEFING INSTRUCTIONS

The simulation debriefing can be accomplished in approximately two hours and consists of three parts: (1) written student evaluation of the negotiations; (2) instructor-led class discussion; and (3) student discussion of the negotiation within the six-person groups.

Two forms should be prepared for evaluation of the negotiation by students. One is a negotiator evaluation form. Each participant is instructed to evaluate the performance of *one* member of the opposing team. The form consists of twelve dimensions of negotiator skill to be rated and includes room for brief comments. The twelve five-point items are: (1) well prepared/unprepared; (2) high aspirations/low aspirations; (3) good listener/poor listener; (4) asks good questions/doesn't ask good questions; (5) makes powerful arguments/makes weak arguments; (6) quick to respond/slow to respond; (7) honest/deceptive; (8) exploitive/accommodating; (9) patient/impatient; (10) avoids concessions/readily makes concessions; (11) creative/not creative; and (12)

would be interested in working with person again/would not. On the second form the students are asked to comment on both negotiation teams' performance. The *group evaluation form* is much less structured and asks for more general comments about "strong points" and "weak points." The forms require about 10 to 15 minutes to complete and should be filled out immediately after completion of the negotiation.

The instructor-led discussion includes three topics: (1) a comparison of the various groups' results, including disclosure of the Maverick purchasing objectives; (2) a description of the different and conflicting motives for each of the six roles; and (3) possible effective bargaining strategies for each side. The Maverick purchasing objectives should be disclosed first, followed by comparison of bargaining outcomes among student groups. However, it is important to point out during the discussion that any evaluation of negotiation outcomes is in itself a difficult task and very much dependent on one's point of view. Any deviations from standard terms and conditions or price or purchasing objectives almost always requires explanation once representatives return to their respective headquarters.

Following the comparison of results, the individual motives of each role should be shared with the group. For example, the Maverick production engineer does not want the recuperator product options, while the PARTEX design engineer thinks that the recuperator is important. All such individual motives should be revealed to the group. It should be pointed out to the students that such contrary personal and professional goals are typical of industrial sales negotiations.

The last topic to be discussed during the instructor debriefing is possible bargaining tactics. The list below is not intended to be exhaustive, but exemplary only.

### Bolter Tactics

The following are a few of the more important bargaining tactics which the Bolter team might have employed during the simulation.

(1) *Market research at the negotiation table.* Initially maximize questions and carefully sound out Maverick's position. Get them to make a counter offer.

(2) *Break, then counter-punch.* Once you are certain of Maverick's position and priorities, break for a private "strategy adjustment," given the new information.

(3) *Raise your price.* "Things have changed since we prepared the quote." If this seems too risky you may want to add, ". . . but we'll leave the price as it is." The ethics of such a tactic should be discussed.

(4) *Avoid concessions.* Avoid making any further commitments or concessions until you understand the full picture. "I can't say for certain until we've discussed the other issues."

(5) *The mouthpiece routine.* Let the sales representative do the talking. This gives the sales manager the opportunity to change things and correct mistakes if necessary.

(6) *Creativity.* Suggest concessions on issues not listed—future purchases, for example.

(7) *Use all the time.* Make no concessions until near the end of the bargaining session.

#### Maverick Tactics

The following bargaining tactics might have been used by the Maverick purchasing team.

(1) *Why so high?* Have the Bolter side explain "why" on every item in the quotation. Explore for weak points.

(2) *Break, then counter-punch.*

(3) *No counter-offer.* Avoid making a counter-offer if possible. Your first offer is your first concession and sets limits on your profits from the deal.

(4) *Start low.* If the other side forces a counter-offer, then start lower than your purchasing objectives. If you start with your listed price there is no room for the necessary compromise and no way to achieve your goals.

(5) *Use all the time.*

(6) *Good guy/bad guy routine.* Don't settle the recuperator issue ahead of time. Let the production engineer weaken Bolter's position.

(7) *Creativity.*

Usually 45 minutes is adequate to accomplish this second part of the debriefing.

The final step in the debriefing includes discussion of the various students' evaluation forms within the groups of six. Each student reads his/her comments about the group and then the six amplify, clarify, or disagree. Sharing the information from the group evaluation

forms serves as an excellent discussion stimulus. Following this group discussion, each person is given his/her individual evaluation form to review. Here again, the students usually ask questions and clarify the others' ratings of their own negotiation performance. Ordinarily this second step in the debriefing can be accomplished in about 30 minutes.

#### Variations in Usage and Structure of the Simulation

There are a number of ways in which the BTI Negotiation Simulation might be changed. Below are listed just a few of the possibilities.

*International bargaining.* With minor changes in the game instructions the setting may be transformed to a negotiation across cultures. Such a simulation would provide an excellent context in which to "surface" and discuss cultural differences in bargaining and communication styles.

*Smaller groups.* The simulation is ideally conducted with groups of six students. However, groups of five (the PARTEX engineer's information is given to the Maverick purchasing agent) or four (the Bolter sales representative's information is given to the Bolter sales manager and the PARTEX engineer's to the Maverick purchasing agent) also work well.

*Use of videotaping facilities.* The availability of videotaping facilities dramatically enriches the BTI Negotiation Simulation experience. Each bargaining session would be videotaped. Following completion of the evaluation forms, each student would be required to review the negotiation and "correct" his or her evaluations. Such an exercise allows the students to view themselves as others do. Moreover, our limited capabilities of perception and memory are demonstrated by contrasting the recollections of events to the "reality" of the videotape. Videotaping also allows the instructor the opportunity to view and evaluate the performance of each team, even when several simulations are conducted simultaneously. The videotapes might be used during the debriefing to demonstrate successful or unsuccessful tactics. Finally, students absent from class on the day of the simulation might be required to view one of the tapes and fill out the evaluation forms. Such an assignment would enrich their participation in the instructor's debriefing.

## APPENDIX

### STUDENT MATERIALS

*Each of the six role descriptions requires a different set of support documents.  
See the bottom of each for a list.*

#### BOLTER, INC. REGIONAL SALES MANAGER

You will be playing the role of a regional sales manager for Bolter Turbines, Inc., a manufacturer of industrial gas turbine engines and natural gas compressors. You will be heading up a team of Bolter representatives in the final sales negotiations for a \$3.65 million compressor set project for Maverick Natural Gas, Inc. Your salesperson has been conducting preliminary sales and technical discussions. During this final session with the client personnel you will be expected to make the necessary decisions to conclude the agreement with Maverick.

During the past few weeks a few large contracts with other firms have been won by competitors making this project particularly important to your firm. The opportunity to include a recuperator makes the deal doubly important. The recuperator is a new fuel saving device which Bolter is promoting heavily.

Your salesperson has already submitted a price quotation to Maverick (see the attached copy). Company policy allows up to a 10 percent price reduction at your discretion. Any further reduction in price will require substantial justification on your return to headquarters. Additionally, a large part of your annual compensation depends on achieving profit objectives established at headquarters. Finally, according to market research, Bolter's competitors have recently raised prices on comparable products, thus making your bid very attractive.

Recently, several customers have requested an arbitration clause as part of the terms and conditions. Your legal department feels that such clauses are not necessary. Indeed, in the past when Bolter and client disagreements have gone to arbitration by a third party, Bolter has consistently lost out. Thus, the legal department has asked you to actively avoid arbitration clauses of any sort.

You have thirty minutes to plan bargaining strategies with the other members of your negotiation team. Feel free to use part or all the information provided above in shaping your strategies. Create additional arguments to bolster your position if you so desire. It is important that you play the assigned role to the best of your abilities in order to maximize the learning of all participants. Although you can exchange information from these forms, please do not exchange forms with the other members of your negotiation team. You will have one hour to reach an agreement with the representatives of Maverick. Feel free to make notes on these forms and ask questions if clarification of the instructions is needed.

(price quotation)

#### BOLTER, INC. APPLICATIONS ENGINEER

You will be playing the role of an applications engineer for Bolter Turbines, Inc., a manufacturer of industrial gas turbine engines and natural gas compressors. You have been selected by your firm to participate in negotiations with representatives of Maverick Natural Gas, Inc. regarding the purchase of a Model JR2000 Natural Gas Compressor Set. A price quotation for the basic machinery and associated product options is attached.

As a member of the Applications Engineering Department of your firm you are very interested in communicating to the client personnel the advantages of the product options listed. It has been the

experience of those in your department that when Bolter supplies such options, fewer engineering difficulties are encountered during installation and use of the machinery. Service contracts have proven advantageous in avoiding warranty work possibly caused by improper servicing by client field personnel. Bolter is recognized in the industry as the leader in providing equipment for offshore installations including durable shelters and reliable salt water spray filters.

The recuperator (an option which uses exhaust heat to substantially reduce fuel consumption) is a particularly important part of the project because it is a new product offering for Bolter. As such, your firm is actively seeking experience in installation and servicing the product, and establishing a proven track record of performance to use in future sales. Given the ever-increasing cost of natural gas, your client will be increasingly concerned about the fuel consumption characteristics of your product. The recuperator option should prove to be an attractive part of the project.

You have thirty minutes to plan bargaining strategies with the other members of your negotiation team. Feel free to use part or all the information provided above in shaping your strategies. Create additional arguments to bolster your position if you so desire. It is important that you play the assigned role to the best of your abilities in order to maximize the learning of all participants. Although you can exchange information from these forms, please do not exchange forms with the other members of your negotiation team. You will have one hour to reach an agreement with the representatives of Maverick. Feel free to make notes on these forms and ask questions if clarification of the instructions is needed.

(price quotation)

### BOLTER, INC. SALES REPRESENTATIVE

You will be playing the role of a sales representative for Bolter Turbines, Inc., a manufacturer of industrial gas turbine engines and natural gas compressors. You have arranged a meeting between representatives of your company (your sales manager, an applications engineer, and yourself) and representatives of your client firm, Maverick Natural Gas. The purpose of the meeting is to negotiate the final details of a contract you have been working on during the last six months. This particular contract is personally important to you because it will push your sales performance for the year into the bonus area.

You have submitted, with headquarters' approval, a price quotation to the client (a copy is attached). It has been Maverick's history to ask for price reductions below original quotes. You have the opportunity to "trade off" machinery price for other favorable terms and conditions which are part of the standard agreement. Bolter's standard terms are listed as part of the attached price quotation. In the past you have found that sticking to the standard warranty is considered most important by your headquarters. Particularly when installations are located offshore, costs of labor on warranty work can be extremely unpredictable. Also, at a recent sales meeting your managers pointed out the importance of terms of payment and inflation escalators in times of high inflation.

The product options selected by Maverick are not particularly important to you. You are very concerned that an agreement be reached on the basic machinery, as it dramatically affects your annual bonus. However, the product extras have no effect on your performance evaluation or compensation.

You have thirty minutes to plan bargaining strategies with the other members of your negotiation team. Feel free to use part or all the information provided above in shaping your strategies. Create additional arguments to bolster your position if you so desire. It is important that you play the assigned role to the best of your abilities in order to maximize the learning of all participants. Although you can exchange information from these forms, please do not exchange forms with the other

members of your negotiation team. You will have one hour to reach an agreement with the representatives of Maverick. Feel free to make notes on these forms and ask questions if clarification of the instructions is needed.

The terms of the final agreement will be recorded on the attached contract and signed by representatives of both companies.

(price quotation, blank contract)

### MAVERICK, INC. PURCHASING AGENT

You will be playing the role of a purchasing agent for Maverick Natural Gas, Inc., a producer of natural gas from offshore fields in the Gulf of Mexico. You will be heading up a team of Maverick representatives in the final sales negotiations for a \$3.65 million contract for a Bolter JR2000 natural gas compressor set for a new offshore production facility. A sales representative from Bolter has submitted a bid for the contract which you feel will potentially solve your purchasing problem. However, final details must still be worked out.

You consider the price quoted by Bolter to be out of line with comparable products. You recognize that Bolter turbines are by far the best product available in the time frame required. However, because Bolter has recently lost sales to competitors you anticipate that Bolter might be persuaded to substantially lower prices to the level you have set forth in the attached purchasing objectives.

Of the terms and conditions included in the initial bid, you feel that three are critical to Maverick. First, in recent months Bolter has had difficulty meeting delivery dates. Therefore, the penalty for late delivery will be an important issue during discussions. Second, a new company policy of delayed payments has been published. The Controller at Maverick has "come down hard" on other purchasing agents agreeing to terms of payment other than those listed in the purchasing objectives. Finally, your firm has recently cut back on legal staff and has adopted a policy of third party arbitration in contract disputes. A third party arbitration clause will be a key part of your agreement with Bolter.

The final issue of concern is the recuperator option. The consulting firm involved in the design of the platform project feels the recuperator is a must given the anticipated increasing costs of fuel. Alternatively, the production department predicts major engineering headaches caused by the use of an unproven option such as the recuperator.

Your specific assignment is to resolve all these issues during the negotiations so that the project can be completed on schedule.

You have thirty minutes to plan bargaining strategies with the other members of your negotiation team. Feel free to use part or all the information provided above in shaping your strategies. Create additional arguments to bolster your position if you so desire. It is important that you play the assigned role to the best of your abilities in order to maximize the learning of all participants. Although you can exchange information from these forms, please do not exchange forms with the other members of your negotiation team. You will have one hour to reach an agreement with the representatives of Bolter. Feel free to make notes on these forms and ask questions if clarification of the instructions is needed.

(price quotation, purchasing objectives)

### MAVERICK, INC. PRODUCTION ENGINEER

You will be playing the role of a production engineer for Maverick Natural Gas, Inc., a producer of natural gas from offshore fields in the Gulf of Mexico. You will be participating in the final sales negotiations for a \$3.65 million contract for a Bolter JR2000 natural gas compressor set for a new offshore production facility. You have worked on details of the entire project with the Bolter sales

representative during the last few months. You will be involved in the day-to-day use of the product, thus you are concerned primarily with product performance. Commercial details are less important to you.

Based on your 20 years experience in running offshore production facilities, you consider JR2000 to be the best product available for offshore production. From your point of view the marine shelter and salt spray filters are critical product options. However, you feel the recuperator (an option which uses exhaust heat to substantially reduce fuel consumption) to be a potentially large headache, and an unnecessary frill. In your experience other such product innovations require two to three years of field testing to remove engineering bugs which represent significant down time. Finally, you consider the service contract to be substantially overpriced in the Bolter price quotation. Your own personnel can service the machinery for the cost estimated in the Maverick purchasing objectives.

Regarding terms and conditions, inclusion of labor in warranty is very important. Travel time to and from the offshore production platform will prove to triple the costs involved in warranty repair work, and you feel the vendor should be responsible for covering those expenses.

You have thirty minutes to plan bargaining strategies with the other members of your negotiation team. Feel free to use part or all of the information provided above in shaping your strategies. Create additional arguments to bolster your position if you so desire. It is important that you play the assigned role to the best of your abilities in order to maximize the learning of all participants. Although you can exchange information from these forms, please do not exchange forms with the other members of your negotiation team. You will have one hour to reach an agreement with the representatives of Bolter. Feel free to make notes on these forms and ask questions if clarification of the instructions is needed.

(price quotation, purchasing objectives)

#### PARTEX CONSULTING DESIGN ENGINEER

You will be playing the role of a consulting engineer from PARTEX and Associates Company. You are presently working on the design of an offshore natural gas production platform for Maverick Natural Gas, Inc. As part of your responsibilities you are to represent Maverick in the final sales negotiations for a \$3.65 million contract for a Bolter JR2000 natural gas compressor set for the offshore project you have helped design. You have worked with the Bolter sales representative during the last six months on this particular job, as well as several other jobs in previous years. You are a firm believer in the high quality of Bolter products and personnel.

Regarding the price quotation for the JR2000 and the associated options you feel it to be reasonable. You have found that generally you get what you pay for.

Delivery within three months has recently become a critical issue from your point of view. In order to complete the entire natural gas production platform as per the schedule you developed, the Bolter machinery is needed earlier than anticipated. Deliveries of other components of the production facility have been delayed unexpectedly, thus "making room" for early installation of the Bolter machinery.

Finally, you feel very strongly that recuperated gas turbines (the recuperator is an option which uses turbine exhaust heat to reduce fuel consumption) are the way of the future. You believe that it is in the best interests of Maverick to include this important product innovation in the Bolter purchase. Additionally, you have a personal interest in such technological advancements and their use.

You have thirty minutes to plan bargaining strategies with the other members of your negotiation team. Feel free to use part or all of the information provided in shaping your strategies. Create

additional arguments to bolster your position if you so desire. It is important that you play the assigned role to the best of your abilities—to maximize the learning of all participants. Although you can exchange information from these forms, please do not exchange forms with the other members of your negotiation team. You will have one hour to reach an agreement with the representatives of Bolter. Feel free to make notes on these forms and ask questions if clarification of the instructions is needed.

(price quotation, purchasing objectives)

**BOLTER TURBINES, INC.**

**PRICE QUOTATION**

For Maverick Natural Gas, Inc.  
7 Euwing Avenue  
Dallas, Texas

Installation: Offshore  
Production Platform #6  
Gulf of Mexico

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Model JR2000 Natural Gas Compressor Set	\$2,500,000
Product Options	
Custom-built Marine Shelter	400,000
Recuperator	500,000
Salt Spray Air Filters	100,000
Service Contract (2 years normal maintenance, parts and labor)	150,000
<b>TOTAL PRICE</b>	<u><b>\$3,650,000</b></u>

**STANDARD TERMS AND CONDITIONS**

Delivery	6 months
Penalty for late delivery	\$10,000/month
Cancellation charges (if client cancels order)	10% of contract price
Warranty (for defective machinery)	parts, one year
Terms of payment	COD
Inflation escalator*	15% per year

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\*In the event that delivery is delayed by client, the quoted price will be increased at a rate of 15% per year, computed on a monthly basis.



MAVERICK PURCHASING OBJECTIVES

JR2000 Compressor Set	\$2,200,000
Marine Shelter	300,000
Recuperator	400,000
Salt Spray Filters	60,000
Service Contract (3 years)	90,000
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TOTAL PRICE	\$3,050,000

Delivery	3 months
Penalty for late delivery	\$75,000/month
Cancellation charges	2% of contract
Warranty	parts <i>and</i> labor, 2 years
Terms of payment	4 equal payments, 1st at delivery, 2nd at start-up, 3rd and 4th at 90-day intervals
Inflation escalator	10% per year
Third Party Arbitration Clause	included

FINAL CONTRACT TERMS

JR2000 Compressor Set  
 Product Options (circle those selected)  
     Shelter  
     Recuperator  
     Filter

TOTAL PRICE   \$ \_\_\_\_\_

Service Contract (list conditions)  
 \_\_\_\_\_  
 \_\_\_\_\_

PRICE   \$ \_\_\_\_\_

Terms and Conditions  
 Delivery \_\_\_\_\_  
 Penalty \_\_\_\_\_  
 Cancellation Charges \_\_\_\_\_  
 Terms of Payment \_\_\_\_\_

Inflation escalator \_\_\_\_\_  
 Warranty                      parts \_\_\_\_\_      labor \_\_\_\_\_      years \_\_\_\_\_  
 Arbitration clause                      yes \_\_\_\_\_      no \_\_\_\_\_

Signatures  
 \_\_\_\_\_  
 Maverick Representative                      Bolter Representative