Case: Jeta Plastics Moulding (JPM)

The sales manager of Jeta Plastics Moulding (JPM), Frank Morris, was concerned about the bidding results of the last two years. JPM is a small manufacturer of high pressure injection-molded plastic parts, supplied to the automotive industry. They are qualified as a Tier 2 supplier and their customers are Tier 1 companies such as Lear, Magna, Levine Controls and Faurecia. Tier 1 companies supply directly to car assembly plants on a just in time basis.

Over the past few years, JPM's success in winning large contracts had steadily declined, forcing JPM to pursue greater numbers of small contracts and moving up the supply chain and becoming a Tier 3 supplier. This has become a serious problem; the company's total business has dropped to such an extent that it is currently operating at only 70% of capacity.

Frank realized that there was something wrong with their method of preparing bids. In the past two years, Frank found that the rate of success in winning bids increased as the total size of the contract decreased; particularly he observed that they were really successful in the Tier 3 segment.

In their attempt to increase the total amount of sales for JPM, they had submitted almost double the number of bids compared to previous years, but the number of bids submitted for Tier 2 contracts remained the same although the success rate declined sharply. This resulted in two people from the accounting department spending most of their time preparing the cost data for the bids.

JPM used a standard full-cost accounting system, and bids were prepared with the objective of earning a 20% markup on total costs. Standard hourly operating rates were developed using regression analysis of monthly prior-period costs for each machine and process. These costs, labeled as conversion costs, included all labour, job setup, and mold development costs as well as fixed and variable processing overhead costs. The job setup and mold development costs were fairly constant from job to job. The coefficients from the regression analysis were used as the rates for variable-cost items and the intercept values were divided by full capacity processing hours to determine the rates for fixed-cost items.

Frank has the idea that there is something wrong with JPM's current bidding system. Accordingly, he decided to test alternative approaches in preparing their next bid for a fairly small contract for instrument panel components requested by Levine Controls Inc.

He started with the usual bidding method based on the cost estimate prepared by the accounting department (Exhibit 2-1), and made a mental note that he would normally have submitted a bid of $145,000. He then made his best estimates of the probabilities of winning the contract at various bids (Exhibit 2-2) based on the past experience of the last two years and the profile of the customer.

REQUIRED:

Using the case approach discussed in class, determine what Frank Morris should do.

EXHIBIT 2-1

Cost Estimates for Contract to Supply 10,000 Automobile Instrument Panel Components to Levine Controls Inc

	Standard Hours	Standard Rate/Hour	Cost per Unit
Material			$4.463
Conversion costs:			
Labour: Variable	300	$21.97	$0.659
Fixed	300	25.17	$0.755
			$1.414
Processing on machine: Variable	500	$51.50	$2.575
Fixed	500	35.50	$1.775
			$4.350
Finishing: Variable	100	23.50	$0.235
Fixed	100	28.50	$0.285
			$0.520
Total manufacturing costs before rejects			$10.747
Rejects (1)			1.075
Total manufacturing costs			$11.822
Selling and administration (2)			0.337
Total cost			$12.159
Markup (20%)			2.432
Standard price per unit			$14.591
Standard bid for 10,000 units (3)			$145,910

Notes:

1) A 10% standard allowance was added for defective units which would be rejected during final inspection. This reflected a normal spoilage rate.

2) Selling and administration costs were all treated as fixed.

3) This contract would utilize 2% of JPM's total capacity.

EXHIBIT 2-2

Probability Estimates Regarding the Potential Contract to Supply 10,000 Automobile Instrument Panel Components to Levine Controls Inc.

Probability of Bid Amount Winning Contract	
$135,000	95%
145,000	85
150,000	80
155,000	75
160,000	65

As of today, Frank wants to carefully **e**valuate JPM's method of preparing bids and find an explanation of how the rate of success in winning bids was affected by this bidding method. However, he also is facing an immediate challenge that has to be solved: considering only quantitative factors, what amount should JPM bid for the instrument panel component contract? What qualitative factors should be considered before deciding on the amount of the bid?

When thinking in the long term, there are other issues that should be considered. A couple of months ago top management has decided to replace the existing production system with a new, completely automated computerized production system. This is aimed at keeping up with technological advances in the industry and hoping to improve the company's success in winning large contracts in the Tier 2 segment. This new system will expand the total production capacity of JPM and eliminate all labour except maintenance and some handling. Fixed costs, however, will be significantly increased. What would be the implications in the bidding process of JPM once the new computerized production system is installed and what actions need to be taken before moving to the new system.

Proposed marking key:

Proper format and presentation: 5%
Introduction: 15%
Problem identification: pricing setting tied to full costs 10%

Analysis:
Current system: 15%
Determining the price of the bid: 20%
Assessing the changes in the future system: 10%

Alternatives: 10%

Recommendation: 5%
Regarding the recommended solution (2% each):

- Solves the problem?
- Uses the analysis?
- Is derived from alternatives?
- Is based on theory?
- Makes business sense?

Case: Jeta Plastic Moulding (ADMS3510 Winter 2008)

Student:	
Case Approach (5%) format, spelling, grammar, sentence structure	
Introduction (15%) All relevant facts describing the company and its situation	
Problem and Issue identification (10%) . short term bid to Levine Controls (4%) . long term issue related with bidding process (6%)	
Analysis (45%)	
Description of the limitations off the current system (15%) a. The fixed processing rate is based on full capacity b. 70% of capacity: under-allocation of fixed costs. c. The costing of rejects is inappropriate: only variable costs d. "Standards" based on prior period costs are inappropriate. e. Learning curve: unit variable costs for large jobs < for small jobs. d. Inappropriate to use a single markup rate for all sizes of jobs e. Estimate competitors' cost behaviour patterns and capacity. f. Using probabilities and contributions for preparing bids	
Determine the price of the bid (20%) a. price based on contribution margin (10%) or based on full costs (5%) b. Proper use of probabilities of outcome to determine the expected value (10%)	
Assess the changes in the future system (10%)	
Alternatives (10%) At least 2 mutually exclusive alternatives in terms of bidding process, calculation or price.	
Recommendation (5%) Clearly state what the company has to do immediately	
Tests of the recommendation (2% each for a total 10%) Solves the problem? Uses the analysis? Is derived from alternatives? Is based on theory? Makes business sense?	
Subjective evaluation after comparing with other reports	
Total	