59. Avery, Inc., is a wholesale distributor supplying a wide range of moderately priced sporting equipment to large chain stores. About 60 percent of Avery’s products are purchased from other companies, and the remainders of the products are manufactured by Avery. The company has a plastics department that is currently manufacturing molded fishing tackle boxes. Avery is able to manufacture and sell 8,000 tackle boxes annually, making full use of its direct labor capacity at available workstations. The following table presents the selling price and costs associated with Avery’s tackle boxes:

|  |  |  |
| --- | --- | --- |
| Selling price |  | $86.00 |
| Costs per box: |  |  |
| Molded plastic | $8.00 |  |
| Hinges, latches, handle | 9.00 |  |
| Direct labor ($15/hour) | 18.75 |  |
| Manufacturing overhead | 12.50 |  |
| Selling and administrative cost | $17.00\* | 65.25 |
| Profit per box |  | $20.75 |
| \*Includes $6 per unit of fixed distribution costs. |  |  |

Because Avery believes that is could sell 12,000 tackle boxes, the company has looked into the possibility of purchasing the tackle boxes from another manufacturer. Craig Products, a supplier of quality products, could provide up to 9,000 tackle boxes per year at a per unit price of $68. Variable selling and administrative costs of $4 per unit will be incurred if the tackle boxes are purchased from Craig Products.

Bart Johnson, Avery’s product manager, has suggested that the company could make better use of its plastics department by purchasing the tackle boxes and manufacturing skateboards. To support his position, Johnson has a market study that indicates an expanding market for skateboards and a need for additional suppliers. Johnson believes that Avery could expect to sell 17,500 skateboards annually at a price of $45.00 per skateboard. Johnson’s estimate of the costs to manufacture the skateboards is as follows:

|  |  |  |
| --- | --- | --- |
| Selling price per skateboard |  | $45.00 |
| Costs per skateboard: |  |  |
| Molded plastic | $5.50 |  |
| Wheels, plastic | 7.00 |  |
| Direct labor ($15/hour) | 7.50 |  |
| Manufacturing overhead | 5.00 |  |
| Selling and administrative cost | 9.00\* | 34.00 |
| Profit per skateboard |  | $11.00 |
| \*Includes $6 per unit of fixed distribution costs. |  |  |

In the plastics department, Avery uses direct labor hours as the application base for manufacturing overhead. Included in the manufacturing overhead for the current year is $50,000 factory-wide, fixed manufacturing overhead that has been allocated to the plastics department.

Required

1. Define the problem faced by Avery based on the facts as presented.
2. What are the relevant objectives in this problem?
3. What options are available to Avery in solving the problem?
4. Rank the options in order of preference.
5. What qualitative factors should Avery consider in the decision?
6. Should Avery consider the potential liability that comes with selling skateboards? It has been shown that skateboards are responsible for 25 deaths per year and more than 500 serious accidents. Would that change your decision to make skateboards?