Augustine medical case

Philosophy

AUGUSTINE MEDICAL, INC.

The Bair Hugger Patient Warming System Winston Rivero MK 4900 Prof. H. Barksdale October 16th, 2012

Industry Analysis:

- Many competitive technologies are available for the prevention and treatment of postoperative hypothermia. The fall into the two categories: o Surface Warming ? Warmed hospital blankets ? Water-circulating blankets ? Air-circulating blankets and mattresses ? Thermal drapes ? Infrared heating lamps ? Partial warm-water immersion ? Increased room temperature Internal Warming ? Heated and humidified air (used with intubated patients) ? Warmed intravenous (I. V) fluids ? Drug therapy.
- Approximately 21 million surgical operations performed in the United States or 84, 000 operations per average day. • Approximately 5, 500 Hospitals have operating rooms and postoperative recovery rooms in the U. S o 31, 365 postoperative hospital beds o 28, 514 operating rooms in hospitals.

Company Analysis:

- Augustine Medical, Inc. s a firm that develops and markets products for hospital operating rooms and postoperative recovery rooms.
- Founded by Dr. Scott Augustine, an anesthesiologist. His personal experiences in the field of medicine have helped Dr. Augustine develop a product that offered all the features that nurses and patients would appreciate the most.

- Initial capitalization of $500, 000 that will be used to cover fixed costs such as: salaries, leased space, and promotional marketing during its first year of operation.
- The Bair Hugger Patient Warming System: The Bair Hugger Patient Warming system has several advantages over other treatments: ? Warm air makes patients feel warm and they stop shivering almost immediately. ? The system does not cause burns ? The system can be used safely around electrical equipment ? Disposable blankets eliminate the risk of cross-contamination ? The system does not require the patient to be lifted or rolled. o Consists of a heater/blower unit and separate inflatable covers or blankets (12 in total).

The warming time per patient is about two hours. o Plastic covers are patented. Heater/blower unit does not have a patent. o Subcontractors determined the costs of the components to be: ? $380 heater/blower unit ? $0. 85 per plastic disposable blanket. o The system is sold through medical product distributor organizations around the country. The margins paid to the distributors are: ? 30% of the delivered selling price on the heat/blower unit. ? 40% of the delivered selling price on the blankets

Trends Analysis:

- The Bair Hugger Patient is designed to control body temperature of postoperative patients and to treat hypothermia experienced by some patients after operations. o Medical research states that 60-80% of postoperative patients experience hypothermia.
- Marketing Research: Research commissioned by the firm indicated that hospitals with fewer than seven beds would most likely not be

interested in Bair Hugger Patient Warming System. Potential Target Market: 1, 888 hospitals accounting for about 80 % of all surgical operations in the U. S. o Projected sales demand of 2, 826 heat/blower units

- Trend ofinterviewresponses after product demonstration: o Belief in making the patient feel more comfortable o Belief that the product would speed up recovery for postop patients o Free trial of product o Belief that the product is price sensitive to other cheaper methods o Purchase decisions need to be submitted for approval (above $1, 500) Research suggested that introducing this product to hospitals would be a time-consuming process that would go through stages. The Hosworth-Climator is a product very similar to the Bair Hugger Patient Warming System and it is predicted that this product could be distributed in the United States next year.

Problem Definition: The main problem pertaining to Augustine Medical Inc. is determining the selling price to hospitals for the Bair Hugger Patient Warming System. The system is comprised of two components: the heater/blower unit, and the plastic blankets. Determining the product's selling price is of utmost importance since: it will influence the demand for the product among prospective buyers, determine the firm's cash flow, allow the firm to prepare its promotional marketing/advertising budget, and it will provide essential information to its distributor organizations. Alternative Analysis: The problem that Augustine Medical Inc. s experiencing is determining the appropriate price for its product. The dilemma boils down to two major pricing strategy alternatives: Penetration pricing strategy and skimming pricing strategy. The two alternatives have strengths and weaknesses for the firm.

- Automatic control units from $4, 850 to $5, 295
- Manual control units are $3, 000. Discount 40%
- Reusable blankets from $168 to $375

Advantages to the firm: o Research suggests that the price for this product is elastic compared to other alternatives so lowering the price is a good incentive for customers to try the product. Competitive advantage over competitors such as the Hosworth-Climator. o The product is not entirely protected by patents so competitors can create a similar product Disadvantages to the firm: o The firm must sell more units to break-even

Lower profitability Calculations:

• Heater/blower unit: o Number of hospitals with more than seven beds: 1, 888 o Projected Sales in units: 2, 826 units o Unit selling price: $494 ? $380 cost per unit + $114 distribution markup o Projected Sales: $1, 396, 044 ? (2, 826 units)*($494) o Cost of Units: $1, 073, 880 ? (2, 826 units)*($380) o Cost of Unit distribution (30% of unit selling price): $322, 164 ? (2, 826 units)*($114)

- Blankets: Potential target market: 14, 700, 000 cases of postoperative patients with hypothermia. ? (21 million)*(70%)= 14, 700, 000 cases ? 1, 225, 000 stacks of 12 blankets each.
- [14, 700, 000/12 blankets] ? $10. 20 price per 12 blanket stacks.
- [$0. 85 x 12 blankets] ? Cost of blankets: $12, 495, 000
- (1, 225, 000 stacks)*($10. 20) o 12 blanket stack selling price after distribution: $21 o Cost of distribution cost per stack (40% of stack

selling price): $8. 40 ? ($21)*(0. 40)=$8. 40 ? ($8. 40)*(1, 225, 000 stacks)= $10, 290, 000 o Total cost of distribution: $10, 612, 164 ? $10, 290, 000+$322, 164 o Projected Sales from blankets ? $25, 725, 000

- The calculations show that the firm is profitable under this strategy. Part of the strategy is offering the heater/blower unit for a discounted price of $494 ($380+$114). This price only takes into consideration the distribution cost and the cost to manufacture the heater/blower unit, no profit margin has been added to this price. Research suggested that physicians and nurses would want to try the product before attempting to make a purchase decision. The stack of disposable blankets is priced at $21. The selling price would cover the manufacturing and distribution costs of $10. 20 and $8. respectively, leaving $2. 40 per blanket contributing to profits.

The purpose of this strategy is to attract potential customers and gain market share. In this strategy, sales revenue and profitability are driven by blanket sales since the heater/blower is a durable product and blankets are disposable products. In the short-run, profits will shrink as a result of fixed and variable costs of the units, but in the long run the firm will likely achieve its market share goal. In addition, the combined prices for both the unit and the blankets are less $1, 500, allowing hospitals to make faster purchase decisions without the need of a budget committee approval.

The discounted unit price of $494 serves as a great incentive for nurses and physicians that look for a durable product that is efficient, yet economical. Skimming Pricing Strategy alternative: this strategy consists of setting prices high so that fewer sales are needed to break-even. Advantages to the firm: o The firm could sell fewer units to break-even o The Bair Hugger Patient Warming System is perceived to have better value when compared to competitive products o Research suggests that patient would recover faster using this product. o The product'stechnologyis not widely used in the United States so the company can position it as a premium quality product. Disadvantages for the firm: o Research suggests that the product is price elastic because of its cheaper substitutes. The company could fail to gain its desired market share because of the prices being too high ? There is not patent for the heater/blower unit. Competitors could easily replicate the heater/blower's technology.

Calculations:

- Heater/blower unit: o Projected Sales in Units: 2, 826 heater/blowers o Unit selling price: $3, 500 o Projected Unit Sales: $9, 891, 000 ? (2, 826 units)*($3, 500) o Cost of unit: $380 o Projected Cost of unit: $1, 073, 880 ? (2, 826 units)*($380) o Cost of distribution per unit: $1, 050 per unit ? ($3, 500)*(30% distribution margin) o Projected Cost of unit distribution: $2, 967, 300 ? ($1, 050 unit distribution)*(2, 826 units)
- Blankets: Potential target market: 14, 700, 000 cases (70% of 21 million operations) ? 1, 225, 000 stacks of 12 blankets each (12 blankets per case) o Stack of blanket selling price: $25 o Projected blanket sales: $30, 625, 000 ? (1, 225, 000 stacks)*($25) o Cost per stack: $10. 20= ($0. 85)*(12 blankets per stack) o

Projected Cost of blankets: $12, 495, 000 ? (1, 225, 000 stacks)*($10. 20) o Cost of distribution per stack of blankets: $10 per stack ? ($25)*(40%

distribution margin) o Projected Cost of blanket distribution: $12, 250, 000. The skimming strategy allows the firm to sell fewer units to break-even. The calculations indicate that the firm will be very profitable if it achieves its desired demand of 2, 826 heater/blower units and 1, 225, 000 stacks of blankets. The heater/blower is priced at $3, 500 ($500 less than the most comparative product).

This price point is attractive because is considerably less than water-circulating blankets' prices that could range from $4, 850 to $5, 295. It is justifiable because the technology of the Bair Hugger Patient Warming System is perceived as more effective, and safer than other alternative methods. It is not widely used in the United States so the firm can position it as a cutting edge product. The unit's selling price more than satisfies its costs of manufacturing and distribution with the remaining going straight to profits. Under this strategy the disposable blankets are still the driving force of sales revenue because they are disposable and they are a complimentary product to the heater/blower unit.

In the long run the demand for heat/blower units will decline and the demand for disposable blankets will continue to increase or remain constant. Stacks of 12 blankets are priced at $25 that will cover manufacture and distribution costs of $10. 20 and $10 respectively leaving almost $5 ($4. 80) contributing to profit. Recommendation Statement: The company's problem is determining the price of the Bair Hugger Patient Warming System used to treat postoperative patients suffering from hypothermia. Based on the analysis of the two alternatives: Penetration and skimming pricing strategies, I have come to the conclusion that the skimming pricing strategy would be the most efficient in generating profits for the firm.

Recommendation Arguments: Research commissioned by Augustine Medical Inc. ndicated that nurses and physicians interviewed believed that making the patient feel more comfortable is important. They also believed that the Bair Hugger Patient Warming System would speed up the recovery of postoperative patients. This means that the see value in the product and in my opinion would not mind paying a price of $3, 500 per heat/blower unit and $25 per 12-blanket stack for a technology that is safe, more efficient, and not widely used in the United States. The unit-selling price is considerably more economical than other alternative methods such as water-circulating systems and $500 less than the other air-circulating product competitor.

Some interview respondents felt that the product was price sensitive to other alternative methods. The strategy reflects that by pricing the blanket stacks at $25, within the $20-26 price range of similar products. In the long run sales from heat/blower units will decline or remain constant while the majority of revenue will be driven by blanket sales because of their disposable use. I believethis is the most effective alternative to pricing the Bair Hugger Patient Warming System since it allows the firm to maximize profits in the short run by selling heat/blower units while at the same time ensuring that future revenue cash flows come from the sale of disposable blankets.