

Assignment #2: Pricing Concepts and Strategies Page 1 of 4

Breakeven, Incremental Revenue Contribution, Price Elasticity and Pricing Methodologies

**** THROUGH OUT THIS ENTIRE ASSIGNMENT – PROVIDE SUPPORTING COMPUTATIONS ****

I.. Breakeven Analysis, Incremental Revenue Contribution and Excel Graphing

St. Andrews Medical Center air ambulance program (AAP) operates out of the hospital's Emergency Room ("ER") department. The helicopter transports patients to St. Andrew's ER from the accident scenes. Upon arrival patients receive emergency treatment and most often they are admitted to hospital and can stay quite long depending on the situation. Even though hospital is a non-profit; to be financially successful [similar to any business (like a hotel)] it is important to generate patient occupancy to generate revenues. APP is staffed 24/7 by a nurse, a paramedic, and a pilot; and Monday → Friday a mechanic and office manager.

Annual personnel costs are \$410,000 regardless of how many flights are made. Fuel costs average \$4.50 per mile. Medical Supplies add an additional \$260 to each flight's cost. The remaining costs are included in the monthly lease on the helicopter of (i) \$35,000 base plus (ii) \$10/mile. The average AAP is 20 miles per trip. Currently the air ambulance flies about 600 trips a year. The average amount billed per flight is \$2,250 that is usually paid by patient's insurance company.

1. What is the total annual fixed cost of AAP subsidiary.
2. What is the (i) variable cost per trip and contribution per trip.
3. At 600 trips per year, what is the total annual cost, revenue and profit (loss).
4. You as Marketing Director of Hospital realize the importance of the air AAP from a total marketing exposure standpoint. There are other tangible benefits of the program The program is one of only two AAPs in this large city with over 2 million people.
 - i. What marketing exposure (non-financial) and credibility could hospital benefit from. (Couple sentences)
 - ii. What are the other "hospital wide" FINANCIAL benefits from the AAP program.
 - iii. What is the Break-even number of trips for the AAP subsidiary.
 - iv. A third hospital announces that it will start offering an airlift program and you now project your trips will be reduced by 25%.
 - a) What is the annual profit/loss now.
 - b) Considering both financial and non-financial issues; as CEO would you continue AAP.
5. Professionally prepare a Break-even Graph on Excel/Spreadsheet program.

Use the computer to properly title and label the graph as follows:

 - i. Upper left hand corner: St. Andrews Medical Center Break-Even Analysis

Your Name: _____ Run Date: _____
 - ii. Y-Axis: Annual Costs and Revenues (\$0 → \$1,600,000)
 - iii. X-Axis: Number of Annual Trips
 - iv. Three Lines: Total Revenue, Total Costs
 - v. Two Differently Shaded Areas: Fixed Costs and Variable Costs
6. You look at the distribution of when service is demanded and see a window between 3 AM and 10AM in the morning where rarely are there any airlifts. Through research you find out that between airlifting organs [for transplants] and specialized zoo creatures (rate fish, birds, etc.) the potential for an additional 175 prescheduled trips exist annually. Since Medical Supplies aren't involved; Supply airlift costs are reduced from \$285 to \$75.

Trip Type	Annual Projected Trips	Average Mileage Per Trip	Lease Variable Cost Mileage/Trip	Variable Cost Per Trip		Total Variable Costs/Trip	Projected Charge Per Trip	Incremental Contribution Per Trip	Total Incremental Contribution
				Supplies	Gas				
Organ	125	50					\$1,400		
Zoo	50	80					\$1,000		

- i. Complete the Table above. Use Insert Table in Word (landscape or portrait okay)
- ii. Which Trip Types would be beneficial for AAP to conduct and why (quantify)
- iii. How much incremental profit will result. What % increase is this over base 600 airlifts profit

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II.. Price Elasticity and Price-Cross Elasticity

Price Elasticity

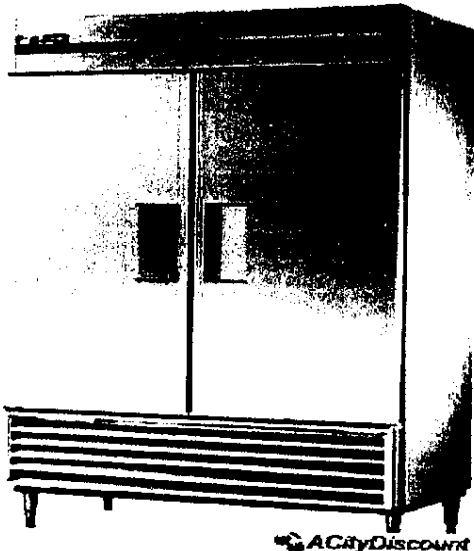
1. Yesterday, the price of envelopes was \$3 a box, and Julie was willing to buy 10 boxes. Today, the price has gone up to \$3.75 a box, and Julie is now willing to buy 8 boxes. (i). What is the Price Elasticity for the envelopes. (ii) Is Julie's demand for envelopes elastic or inelastic (iii) Will Total Revenues \uparrow or \downarrow ; explain answer without needing computation.
2. If Neil's elasticity of demand for hot dogs is constantly 0.9, and he buys 4 hot dogs when the price is \$1.50 per hot dog, how many will he buy when the price is \$1.00 per hot dog. **[Your at GT !!]**
3. (i) Which of the following goods are likely to have "Elastic" demand, and which are likely to have "Inelastic" demand?
 - a) Home heating oil b) Coca-Cola c) Chocolate bars d) Heart medication
 (ii) Add two other of your own examples to each category (Elastic and Inelastic)

Cross - Price Elasticity

B.B. Lean is a catalog retailer of a wide variety of sporting goods and recreational products. Although the market response to the company's spring catalog was generally good, sales of B.B. Lean's \$140 deluxe garment bag declined from 10,000 to 4,800 units. During this period, a competitor offered a whopping \$52 off their regular \$137 price on deluxe garment bags.

4. Calculate the Cross-Price Elasticity of demand for B.B. Lean's deluxe garment bag in conjunction with competitor's garment bag offering.
5. B.B. Lean's deluxe garment bag sales recovered from 4,800 units to 6,000 units following a price reduction to \$130 per unit. Calculate B.B. Lean's Price Elasticity of demand for this product.
6. Assuming the same Price Elasticity of demand calculated in #5 continues to apply for further price reductions. Determine the both the final price and further price reduction necessary for B.B. Lean to fully recover lost sales (i.e., regain a volume of 10,000 units from 6,000 units at \$130 in #5). **[Your at GT !!]**

III.. Strategic Pricing Methods (Information presented "reasonable" but not meant to be "factual")



During your senior year your brilliant freshman roommate, Jordan, who has majored in Mechanical Engineering, comes up with an incredible new method of refrigeration. You have accepted the position as Vice President off Marketing. Through brainstorming your executive committee arrives at the company name of Futuristic Cooling.. You are in the process of obtaining patent protection and have obtained joint venture seed money for startup of \$2.8 Million. The first product market you decide to pursue is the Commercial, Side by Side Freezers in the 50 cubic feet size. This size is the most commonly purchased freezers for small and medium size restaurants, convenience stores, and bars. Production will begin shortly and units will be available for shipment within six months.

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III.. Strategic Pricing Methods (CONTINUED) Include ALL COMPUTATIONAL WORK

Your new refrigeration process creates the following operating and financial advantages over your main competition primarily due to an amazing "secret" new process and using a different chemical other than traditional Freon passing through cooling coils.

- ◆ Compressor and coils take up less space allowing for more freezer space with essentially the same overall dimensions.
- ◆ Power consumption is less reducing annual electrical bills.
- ◆ Since process more efficient with smaller stress on both components and the main compressor you are able to offer a better warranty with purchase.

Below is information that you have gathered to assist in determining pricing and promotion.

	True Manufacturing	Artic Air	Futuristic Cooling
1. Internet/Commercial Price	\$3,200	\$3,300	????
2. Freezer Space	50 Cubic Feet	51 Cubic Feet	55 Cubic Feet
3. Dimensions:	L:54" D: 29" H: 78	L:54" D: 29" H: 78	L:54" D: 29" H: 78
4. Estimated Monthly Electrical Consumption	\$75	\$80	\$60
5. Warranty With Purchase - Entire Unit - Compressor Only	1 Year Parts/Labor 3 Year Parts/Labor	1 Year Parts/Labor 3 Year Parts/Labor	2 Year Parts/Labor 5 Year Parts/Labor
6. Extended Warranty cost upon Purchase from industry firms: - Entire Unit (1 st five years) - Compressor Only (1 st five yrs)	\$200/Yr \$75/Yr	\$200/Yr \$75/Yr	\$200/Yr N/A .. covered for 5 Yrs.

The True Manufacturing and Artic Air are the main competitive units in the marketplace.

Based on an effective product launch a terrific Internet Site SEO/SEM, and creative viral marketing programs (both you learned in your Marketing courses you project sales during the first four years as:

YR1: 1,500 Units YR2: 2,500 Units YR3: 4,000 Units YR4: 6,000

- 1.. Apply Cost Based pricing. You have decided that you want a 28% margin. The total costs should include spreading start-up costs of \$2.8 Million over the first four years of units sold. Your accounting counterpart provides you an average cost of production of \$2,100 (all fixed and variable costs) to be used over this four year period. What should unit be priced under this method.
- 2.. Assuming your Pricing Strategy is solely based on Competitor Based pricing and your Marketing efforts are solely based on your attention-getting Internet site and viral marketing directing people to the site. You realize it will be difficult to communicate the financial and operating advantages you're your competitors as most Internet purchasing tends to be primarily price based. What pricing do you recommend and why under this Competitor based pricing method.
- 3.. Assuming that the freezers are sold where you can adequately communicate the financial benefits/value to buyers. This approach may result in a different Promotion Strategy to sell units at higher price than competition yet be successful. Under this Value Based pricing you are able to communicate long-term financial advantages through either direct sales or educating and providing incentives to wholesalers.
 - i. Calculate the total financial value/benefit of the Futuristic Cooling Freezer with time period being the first five years.
 - ii. Compute a Value Based Unit Price assuming that you take the Competitor's Price and add on 35% of total savings during the first five years.
 - iii. You conduct some Market Research that costs \$100,000 to determine whether you can Successfully achieve this higher pricing and impact on quantities and higher promotional costs. The study projects that over the four years projected sales will increase 12% but Promotional Budget will be \$1 Million first two years, and \$.5 Million last two years. What is the additional Profits will Futuristic Cooling experience over the four year period.

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IV.. So Now You Are A Restaurant "Pricing"/"Target Marketing" Consultant (True Situation)

Diane and Paul go out with friends for dinner at Brio Tuscan Grille (Perimeter) recently on a Thursday evening. Though Paul despises expensive, non-value type restaurants, Brio is one of the few more upscale restaurants he likes as even though it is more pricey (vs Outback, etc.); the portions are large, quality of food excellent, great bread/lavash basket comes with the meal, and very nice ambiance.

Brio is a typical upscale restaurant with an "al a carte" me. Diane and Paul most always:

- ◆ Split two main entrees [always Pork Chops (\$19.50) and maybe something like Shrimp & Scallop Scampi (\$18.50)
- ◆ Paul's Lobster Bisque at \$5.95
- ◆ Diane's Salad at \$5.95
- ◆ And despite our waste lines each have a dessert at approximately \$7.95

Unbeknownst to us we enter and see the following Three Course Dinner Special advertised prominently at the reception counter, for \$16.95 it offers:

- (i..) Choice of Soup or Salad
- ii..) Entrée Choice: Grilled Chicken Fettuccine Alla Vodka, Citrus Chicken, Beef Marsala Medallions
- (iii..) Dessert (smaller portioned): Tiramisu, Crème Brulee, Cheesecake, Chocolate Carmel Cake

Wow what a meal, the Beef Marsala was incredible and all the portions were as large as normal except the dessert and we preferred this actually.

Answer The Following

- 1.. How much were Diane and Paul planning on spending before they were encouraged by advertising promotion to consider the special (before beverage, taxes and tip):
- 2.. Because we both selected the Three Course Dinner Special we ended up spending what amount and what was the lost revenue percentage.
- 3.. Now comes the strategic marketing and pricing analysis. You are hired by Buckhead Restaurant Life Group to review their marketing programs and come across this one at Brio's.
 - A.. What are the Pros and Cons of offering this Three Course Dinner Special which is done Sunday – Thursday currently. [Simple bullets point answer formal suggested]
 - B.. We talked about important pricing concepts including "Cannibalization", "Incremental Revenue Contribution" for targeted "incremental" markets. Discuss the applicability of these related concepts and whether or not they are achieving "incremental business". Monday through Thursday evenings are a lot of business customers, how price sensitive are they, are they actively looking for a "deal".
 - C.. How could they achieve incremental business through effective sales promotion Ideas to isolate this lower profit margin business. Get "creative" in your promotional Ideas.