**Hallstead Jewelers**

**Managerial Accounting**

**Summary of Hallstead Jewelers**

Hallstead Jewelers was established in 1924 in the largest city in the tri-state region. For more than 50 years, Gretchen Reeves and her brother and sister’s grandfather ran and grown the original store to one of the largest jewelry and gift stores in the United States. The stores were broken down into four departments: tabletop gifts (china and flatware), watches, fine jewelry and gems, and artistic gifts. Gretchen’s father took over the business once her grandfather passed away. In 2002, Gretchen’s father passed away and the business was inherited by three of his children (James, Gretchen, and Michaela). Sales began to stagnant in 1999 and profits began to slip as the once popular shopping designation on Lake Avenue and Second Avenue shifted two blocks west to Washington Street. In 2004, Hallstead Jewelers moved two blocks away to an old abandoned toy seller on the corner of Washington Street and Second Avenue. Gretchen and Michaela believed after the move will be finished at the beginning of 2006 and since the move would take most of the 2005 fiscal year that it would be a “lost year”. However, after the renovations they believed things would turn around. They are several macroeconomic events that were currently in effect. Two rivals were growing and taking away market share. Tiffany & Company had grown like Hallstead Jewelers into a well-established global jewelry retail store and Blue Nile had established themselves as the leader in jewelry sales over the Internet. In 2006, net income dropped to a loss of $406 thousand dollars and Michaela and Gretchen decided a change in strategy was in order. Gretchen and Michaela had several questions for the accountant to analyze to help come up with a strategy.

**Questions from Michaela and Gretchen**

1. **How has the breakeven point in number of sales tickets (number of customer orders written) and breakeven in sales dollars changed from 2003, to 2004, and to 2006? How has the margin of safety changed? What caused the changes?**
2. **One idea that the consultant had was to reduce prices to bring in more customers. If average prices were reduced ten percent (10%), and the number of sales tickets (unit sales) increased to 7,500, would the company’s income be increased? With prices reduced, what would be the new breakeven point in sales tickets and sales dollars?**
3. **Another idea that Gretchen had was to eliminate sales commissions. Hallstead’s was the only jewelry store in the city that paid sales commissions, and although both Grandfather and Father had insisted that commissions were one of the reasons for their success, Gretchen had her doubts? How would the elimination of sales commissions affect the breakeven volume?**
4. **Michaela felt that a bigger store could benefit from greater advertising and suggested that they increase advertising by $200,000. How would this affect the breakeven point? Would you recommend that the sisters try this?**
5. **How much would the average sales ticket have to increase to breakeven if the fixed cost remained the same in 2007 as it was in 2006?**
6. **What do you recommend that the managers at Hallstead Jewelers do?**

**Responses from Accountant**

**Question #1**

The break-even point in the number of sales tickets for 2003, 2004, and 2006 are 4,535, 5,000, and 7,505 respectively. The break-even point in sales dollars for 2003, 2004, and 2006 are $7,287,043, $7,620,696, and $11,655,277 respectively. The margin of safety is the difference between the expected level of sales and break-even sales. Since there is no expectation of sales mentioned in the case report, we will assume a constant level of expected sales. If the expected level of sales remains constant then as break-even sales increase the margin of safety will decrease. As we see in table 1, as fixed costs increased along with the break-even sales point, actually sales did not meet expected and the company reported a loss in 2006. This was caused by an increase in salaries (larger store room), increase in administrative expenses, increase in miscellaneous expenses, increase in depreciation (increase in assets from the larger store), and an increase in rent (new store); which all lead to an increase in fixed costs and an increase in break-even sales. See calculations in Table 1.

**Table 1: Break-even Sales Calculations (thousands of dollars)**

|  |  |  |  |
| --- | --- | --- | --- |
|   | **2003** | **2004** | **2006** |
| Sales | $8,583  | $8,102  | $10,711  |
| Less variable costs: |  |  |  |
|  Cost of goods sold | 4,326 | 4,132 | 5,570 |
|  Commissions | 429 | 405 | 536 |
|  Total variable costs | 4,755 | 4,537 | 6,106 |
| Contribution margin | $3,828  | $3,565  | $4,605  |
| Contribution margin ratio | 0.4460 | 0.4400 | 0.4299 |
| Less fixed costs |  |  |  |
|  Salaries | 2,021 | 2,081 | 3,215 |
|  Advertising | 254 | 250 | 257 |
|  Administrative expenses | 418 | 425 | 435 |
|  Rent | 420 | 420 | 840 |
|  Depreciation | 84 | 84 | 142 |
|  Miscellaneous expenses | 53 | 93 | 122 |
| Total fixed costs | $3,250 | $3,353 | $5,011 |
| Profit |  $578  |  $212  |  $(406) |
|  |  |  |  |
|   | **2003** | **2004** | **2006** |
| Sales tickets |  5,341  |  5,316  |  6,897  |
| Average sales ticket | $1,607 | $1,524 | $1,553 |
| Average cost of goods sold | $810 | $777 | $808 |
| Average Commissions | $80 | $76 | $78 |
| Average variable costs | $890 | $853 | $885 |
| Contribution margin | $717  | $671  | $668  |
| Contribution margin ratio | 0.4460 | 0.4400 | 0.4299 |
| Total fixed costs | $3,250,000 | $3,353,000 | $5,011,000 |
| Break-even sales tickets |  4,535  |  5,000  |  7,505  |
| Break-even sales dollars | $7,287,043 | $7,620,696 | $11,655,277 |

**Question #2**

If average prices were reduced by 10% and this caused the number of sales tickets to increase to 7,500, then net income for 2007 would be forecasted at a loss of $1,045,000. See calculations in Table 2. The new break-even point in sales tickets would be 9,475 tickets and the new break-even sales dollars would be $13,314,712.

**Table 2: Price Reduction Effect on Net Income and Break-even Point (thousands of dollars)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | **2003** | **2004** | **2006** | **2007 (Forecast)** | **Difference 2006 to 2007** |
| Sales | $8,583  | $8,102  | $10,711  | $10,539  | ($172) |
| Less variable costs: |  |  |  |  |  |
|  Cost of goods sold | 4,326 | 4,132 | 5,570 | 5,987 | $417  |
|  Commissions | 429 | 405 | 536 | 586 | $50  |
|  Total variable costs | 4,755 | 4,537 | 6,106 | 6,573 | $467  |
| Contribution margin | $3,828  | $3,565  | $4,605  | $3,966  | ($639) |
| Contribution margin ratio | 0.4460 | 0.4400 | 0.4299 | 0.3764 | -0.0536 |
| Less fixed costs |  |  |  |  | $0  |
|  Salaries | 2,021 | 2,081 | 3,215 | 3,215 | $0  |
|  Advertising | 254 | 250 | 257 | 257 | $0  |
|  Administrative expenses | 418 | 425 | 435 | 435 | $0  |
|  Rent | 420 | 420 | 840 | 840 | $0  |
|  Depreciation | 84 | 84 | 142 | 142 | $0  |
|  Miscellaneous expenses | 53 | 93 | 122 | 122 | $0  |
| Total fixed costs | $3,250 | $3,353 | $5,011 | $5,011 | $0  |
| Profit |  $578  |  $212  |  $(406) |  $(1,045) |  $(639) |
|  |  |  |  |  |  |
|   | **2003** | **2004** | **2006** | **Average** | **2007** |
| Sales tickets |  5,341  |  5,316  |  6,897  |  5,851  |  7,500  |
| Average sales ticket | $1,607 | $1,524 | $1,553 | $1,561 | $1,405 |
| Average cost of goods sold | $810 | $777 | $808 | $798 | $798 |
| Average Commissions | $80 | $76 | $78 | $78 | $78 |
| Average variable costs | $890 | $853 | $885 | $876 | $876 |
| Contribution margin | $717  | $671  | $668  | $685 | $529  |
| Contribution margin ratio | 0.4460 | 0.4400 | 0.4299 |  0  | 0.3764 |
| Total fixed costs | $3,250,000 | $3,353,000 | $5,011,000 | $3,871,333 | $5,011,000 |
| Break-even sales tickets |  4,535  |  5,000  |  7,505  |  5,680  |  9,475  |
| Break-even sales dollars | $7,287,043 | $7,620,696 | $11,655,277 | $8,854,339 | $13,314,712 |
|  |  |  |  |  |  |
|   | **Break-even Point** |  |  |  |  |
| Break-even sales tickets old |  7,505  |  |  |  |  |
| Break-even sales dollars old | $11,655,277 |  |  |  |  |
| Break-even sales tickets new |  9,475  |  |  |  |  |
| Break-even sales dollars new | $13,314,712 |  |  |  |  |
| Difference in break-even sales tickets |  1,970  |  |  |  |  |
| Difference in break-even sales dollars | $1,659,436 |  |  |  |  |

**Question #3**

If Gretchen eliminated the sales commissions at Hallstead’s Jewelers the net income for 2013 through 2016 would increase and the break-even point for tickets and sales would decrease. Net income would increase in 2013, 2014, and 2016 respectively to $1,007,000, $617,000, and $130,000. Break-even point in sales tickets would decrease in 2013, 2014, and 2016 respectively to 4,078, 4,490, and 6,723. Break-even point in sales dollars would decrease in 2013, 2014, and 2016 respectively to $6,552,688, $6,843,188, and $10,440,109. See Table 3 for calculations.

**Table 3: Elimination of Commissions Effect on Net Income and Break-even Point (thousands of dollars)**

|  |  |  |  |
| --- | --- | --- | --- |
|   | **2003** | **2004** | **2006** |
| Sales | $8,583  | $8,102  | $10,711  |
| Less variable costs: |  |  |  |
|  Cost of goods sold | 4,326 | 4,132 | 5,570 |
|  Commissions | 0 | 0 | 0 |
|  Total variable costs | 4,326 | 4,132 | 5,570 |
| Contribution margin | $4,257  | $3,970  | $5,141  |
| Contribution margin ratio | 0.4960 | 0.4900 | 0.4800 |
| Less fixed costs |  |  |  |
|  Salaries | 2,021 | 2,081 | 3,215 |
|  Advertising | 254 | 250 | 257 |
|  Administrative expenses | 418 | 425 | 435 |
|  Rent | 420 | 420 | 840 |
|  Depreciation | 84 | 84 | 142 |
|  Miscellaneous expenses | 53 | 93 | 122 |
| Total fixed costs | $3,250 | $3,353 | $5,011 |
| Profit |  $1,007  |  $617  |  $130  |
|  |  |  |  |
|   | **2003** | **2004** | **2006** |
| Sales tickets |  5,341  |  5,316  |  6,897  |
| Average sales ticket | $1,607 | $1,524 | $1,553 |
| Average cost of goods sold | $810 | $777 | $808 |
| Average Commissions | $0 | $0 | $0 |
| Average variable costs | $810 | $777 | $808 |
| Contribution margin | $797  | $747  | $745  |
| Contribution margin ratio | 0.4960 | 0.4900 | 0.4800 |
| Total fixed costs | $3,250,000 | $3,353,000 | $5,011,000 |
| Break-even sales tickets |  4,078  |  4,490  |  6,723  |
| Break-even sales dollars | $6,552,688 | $6,843,188 | $10,440,109 |

|  |  |  |  |
| --- | --- | --- | --- |
|   | **2003** | **2004** | **2006** |
| Break-even sales tickets old |  4,535  | 5000 | 7505 |
| Break-even sales dollars old | $7,287,043 | $7,620,696 | $11,655,277 |
| Break-even sales tickets new |  4,078  |  4,490  |  6,723  |
| Break-even sales dollars new | $6,552,688 | $6,843,188 | $10,440,109 |
| Difference in break-even sales tickets |  (457) |  (510) |  (782) |
| Difference in break-even sales dollars | -$734,355 | -$777,508 | -$1,215,168 |

**Question #4**

If Michaela increased advertising from $257,000 to $457,000 (increase of $200k), then break-even sales tickets will increase to 7,805 and break-even sales dollars to $11,655,277. I would only recommend increasing advertising by $200,000 if she knows that this will increase sales in items from 6,897 to at least 7,505 or by 8.8% (Break-even sales ticket). See Table 4 for calculations.

**Table 4: Increase in Advertising Effect on Break-even Point (thousands of dollars)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | **2003** | **2004** | **2006** | **2007 (Forecast)** |
| Sales | $8,583  | $8,102  | $10,711  | $10,711  |
| Less variable costs: |  |  |  |  |
|  Cost of goods sold | 4,326 | 4,132 | 5,570 | 5,570 |
|  Commissions | 429 | 405 | 536 | 536 |
|  Total variable costs | 4,755 | 4,537 | 6,106 | 6,106 |
| Contribution margin | $3,828  | $3,565  | $4,605  | $4,605  |
| Contribution margin ratio | 0.4460 | 0.4400 | 0.4299 | 0.4299 |
| Less fixed costs |  |  |  |  |
|  Salaries | 2,021 | 2,081 | 3,215 | 3,215 |
|  Advertising | 254 | 250 | 257 | 457 |
|  Administrative expenses | 418 | 425 | 435 | 435 |
|  Rent | 420 | 420 | 840 | 840 |
|  Depreciation | 84 | 84 | 142 | 142 |
|  Miscellaneous expenses | 53 | 93 | 122 | 122 |
| Total fixed costs | $3,250 | $3,353 | $5,011 | $5,211 |
| Profit |  $578  |  $212  |  $(406) |  $(606) |
|  |  |  |  |  |
|   | **2003** | **2004** | **2006** | **2007** |
| Sales tickets |  5,341  |  5,316  |  6,897  |  6,897  |
| Average sales ticket | $1,607 | $1,524 | $1,553 | $1,553 |
| Average cost of goods sold | $810 | $777 | $808 | $808 |
| Average Commissions | $80 | $76 | $78 | $78 |
| Average variable costs | $890 | $853 | $885 | $885 |
| Contribution margin | $717  | $671  | $668  | $668  |
| Contribution margin ratio | 0.4460 | 0.4400 | 0.4299 | 0.4299 |
| Total fixed costs | $3,250,000 | $3,353,000 | $5,011,000 | $5,211,000 |
| Break-even sales tickets |  4,535  |  5,000  |  7,505  |  7,805  |
| Break-even sales dollars | $7,287,043 | $7,620,696 | $11,655,277 | $12,120,464 |
|  |  |  |  |  |
|   | **Break-even Point** |  |  |  |
| Break-even sales tickets old |  7,505  |  |  |  |
| Break-even sales dollars old | $11,655,277 |  |  |  |
| Break-even sales tickets new |  7,805  |  |  |  |
| Break-even sales dollars new | $12,120,464 |  |  |  |
| Difference in break-even sales tickets |  300  |  |  |  |
| Difference in break-even sales dollars | $465,188 |  |  |  |

**Question #5**

If fixed costs and the number of sales tickets remained the same in 2007 as it was in 2006, then the average sales ticket would have to increase from $1,524 to $2,091 to break-even. See Table 5 for calculations.

**Table 5: Increase in Average Sales Ticket Effect on Break-even Point**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | **2003** | **2004** | **2006** | **2007 (Forecast)** |
| Sales | $8,583  | $8,102  | $10,711  | $11,117  |
| Less variable costs: |  |  |  |  |
|  Cost of goods sold | 4,326 | 4,132 | 5,570 | 5,570 |
|  Commissions | 429 | 405 | 536 | 536 |
|  Total variable costs | 4,755 | 4,537 | 6,106 | 6,106 |
| Contribution margin | $3,828  | $3,565  | $4,605  | $5,011  |
| Contribution margin ratio | 0.4460 | 0.4400 | 0.4299 | 0.4508 |
| Less fixed costs |  |  |  |  |
|  Salaries | 2,021 | 2,081 | 3,215 | 3,215 |
|  Advertising | 254 | 250 | 257 | 257 |
|  Administrative expenses | 418 | 425 | 435 | 435 |
|  Rent | 420 | 420 | 840 | 840 |
|  Depreciation | 84 | 84 | 142 | 142 |
|  Miscellaneous expenses | 53 | 93 | 122 | 122 |
| Total fixed costs | $3,250 | $3,353 | $5,011 | $5,011 |
| Profit |  $578  |  $212  |  $(406) |  $-  |
|  |  |  |  |  |
|   | **2003** | **2004** | **2006** |  |
| Sales tickets |  5,341  |  5,316  |  5,316  |  |
| Average sales ticket | $1,607 | $1,524 | $2,091 |  |
| Average cost of goods sold | $810 | $777 | $1,048 |  |
| Average Commissions | $80 | $76 | $101 |  |
| Average variable costs | $890 | $853 | $1,149 |  |
| Contribution margin | $717  | $671  | $942  |  |
| Contribution margin ratio | 0.4460 | 0.4400 | 0.4507 |  |
| Total fixed costs | $3,250,000 | $3,353,000 | $5,011,000 |  |
| Break-even sales tickets |  4,535  |  5,000  |  5,317  |  |
| Break-even sales dollars | $7,287,043 | $7,620,696 | $11,118,516 |  |

$$Profit=SP\left(x\right)-VC\left(x\right)-TFC$$

$$0=SP\left(5,316\right)-\$1,149\left(5,316\right)-\$5,011,000$$

$$SP(5,316)=\$11,119,084$$

$$SP=\$2,091.63$$

**Question #6**

**Exhibit 1: Hallstead Jewelers; Income Statements for Years Ended January 31 (thousands of dollars)**

|  |  |  |  |
| --- | --- | --- | --- |
|   | **2003** | **2004** | **2006** |
| Sales | $8,583  | $8,102  | $10,711  |
| Cost of goods sold | 4,326 | 4,132 | 5,570 |
| Gross margin | $4,257  | $3,970  | $5,141  |
| Expenses |  |  |  |
| Selling expense |  |  |  |
| Salaries | 2,021 | 2,081 | 3,215 |
| Commissions | 429 | 405 | 536 |
| Advertising | 254 | 250 | 257 |
| Administrative expenses | 418 | 425 | 435 |
| Rent | 420 | 420 | 840 |
| Depreciation | 84 | 84 | 142 |
| Miscellaneous expenses | 53 | 93 | 122 |
| Total expenses |  $3,679  |  $3,758  |  $5,547  |
| Net income |  $578  |  $212  |  $(406) |

**Exhibit 2: Hallstead Jewelers Operating Statistics**

|  |  |  |  |
| --- | --- | --- | --- |
|   | **2003** | **2004** | **2006** |
| Sales space (square feet) |  10,230  |  10,230  |  15,280  |
| Sales per square foot | $839 | $792 | $701 |
| Sales tickets |  5,341  |  5,316  |  6,897  |
| Average sales ticket | $1,607 | $1,524 | $1,553 |