MBA 615 – Assignment 4

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# Information Specification requirements

1. Impact of various target income levels on BEP

knows that a target income of $15,000 requires 117 playsets in order to break even. He would like to see what impact $20,000, $25,000, $30,000, $35,000, and $40,000 target incomes have on the breakeven point.

(Use a one-variable data table)

|  |  |
| --- | --- |
| **Target Income** | **Break Even Point** |
| $15,000.00 | 117 |
| $20,000.00 | 135 |
| $25,000.00 | 154 |
| $30,000.00 | 172 |
| $35,000.00 | 191 |
| $40,000.00 | 209 |

(Using Scenario Manager)

1. Different scenarios impact the business’s net income.

Current Scenario (last year)

Evaluate two other possible scenarios:

In the first scenario, increase the number of units sold to 150, decrease revenue per unit to $950, decrease variable costs per unit by $10.

In the second scenario, he wants to increase the number of units sold to 100, increase revenue to

$1,050 per unit, and increase labor by $50.

Generate scenario summary report

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scenario Summary** | |  |  |  |
|  |  | scenario\_1 | original | scenario\_2 |
| **Changing Cells:** | |  |  |  |
|  | **# units sold** | 150 | 85 | 100 |
|  | **Revenue/Unit** | $950.00 | $999.99 | $1,050.00 |
|  | **TOTAL VC/Unit** | $719.54 | $729.54 | $779.54 |
|  | **Labor** | $150.00 | $150.00 | $200.00 |
| **Result Cells:** | |  |  |  |
|  | **Net Income** | $10,735.99 | $4,183.50 | $6,821.04 |

# Questions to answer

1. Mr. Motta wants a net margin ratio of 15 percent. Using Solver, adjust the values for the revenue and number of units sold.
   * Revenue per unit cannot exceed $1,100
   * the number of units sold cannot exceed 250
   * Total variable expenses cannot exceed $110,000.

In order to have a net margin of 15 percent, how many playsets will Mr. Motta need to sell?

142 units

What price should he charge?

$1100

Generate an answer report.

1. Assume that:
   * fixed overhead costs are $7,500
   * variable overhead is $375
   * labor is $200
   * depreciation is $8,500.

If Mr. Motta wants a net income of $30,000:

* what price should Mr. Motta charge for his playsets?
* How many playsets should Mr. Motta sell?

1. Mr. Motta wants a net income of $55,000.

* How many playsets should Mr. Motta sell?
* What price should he charge?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scenario Summary** | |  |  |  |
|  |  | Question 1 | Question 2 | Question 3 |
| **Changing Cells:** | |  |  |  |
|  | **# units sold** | 142 | 145 | 154 |
|  | **Revenue/Unit** | $1,100.00 | $1,162.96 | $1,385.08 |
| **Result Cells:** | |  |  |  |
|  | **Net Margin Ratio** | 0.150 | 0.178 | 0.257 |
|  | **Net Income** | $23,420.02 | $29,999.99 | $55,000.00 |
|  | **TOTAL FC** | $16,552.10 | $16,552.10 | $16,552.10 |

1. Mr. Motta needs a 3-D pie chart that compares the business’s fixed costs.

# Test your design

1. Assume that:
   * fixed overhead is $5000
   * selling expenses are $4,500
   * administrative expenses are $3,000
   * labor costs are $250

What is Mr. Motta’s net income?

($3,257.64)

1. In order to have a net income of $20,000:
   * How many playsets must Mr. Motta sell?

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* + What price should he charge for the playsets?

$1250.89

1. Mr. Motta wants to identify the breakeven point and breakeven point with target income for varying pricing levels. Prepare a one-variable data table that shows this information.

* The pricing levels range from $800 to $1,200, in $10 increments.

|  |  |  |
| --- | --- | --- |
| **Pricing Levels** | **BEP** | **BEP W/Target Income** |
| $800.00 | 235 | 661 |
| $810.00 | 206 | 579 |
| $820.00 | 183 | 515 |
| $830.00 | 165 | 463 |
| $840.00 | 150 | 421 |
| $850.00 | 137 | 386 |
| $860.00 | 127 | 357 |
| $870.00 | 118 | 331 |
| $880.00 | 110 | 309 |
| $890.00 | 103 | 290 |
| $900.00 | 97 | 273 |
| $910.00 | 92 | 258 |
| $920.00 | 87 | 244 |
| $930.00 | 83 | 232 |
| $940.00 | 79 | 221 |
| $950.00 | 75 | 211 |
| $960.00 | 72 | 202 |
| $970.00 | 69 | 194 |
| $980.00 | 66 | 186 |
| $990.00 | 64 | 179 |
| $1,000.00 | 61 | 172 |
| $1,010.00 | 59 | 166 |
| $1,020.00 | 57 | 160 |
| $1,030.00 | 55 | 155 |
| $1,040.00 | 53 | 150 |
| $1,050.00 | 52 | 145 |
| $1,060.00 | 50 | 141 |
| $1,070.00 | 49 | 137 |
| $1,080.00 | 47 | 133 |
| $1,090.00 | 46 | 129 |
| $1,100.00 | 45 | 126 |
| $1,110.00 | 44 | 122 |
| $1,120.00 | 42 | 119 |
| $1,130.00 | 41 | 116 |
| $1,140.00 | 40 | 113 |
| $1,150.00 | 39 | 111 |
| $1,160.00 | 38 | 108 |
| $1,170.00 | 38 | 106 |
| $1,180.00 | 37 | 103 |
| $1,190.00 | 36 | 101 |
| $1,200.00 | 35 | 99 |

If Mr. Motta does not want to sell more than 120 playsets and wants to have a $30,000 target income, how many units must he sell? What price should he charge?

Sell 211 units @ $950 each