

Student: Renato Diniz Cavalcanti

PRESTIGE TELEPHONE COMPANY

- 1) Assuming the company (Prestige Telephone Company) demand for service will average 205 hours per month, what level of commercial sales of computer use would be necessary to break even each month?**

Calculating power costs for three months: $\$1633 + \$1592 + \$1803 = \5028

Since the computers were in use for 1110 hours, then: $(\text{variable cost} - \text{power costs per hour} = \$5028 / 1110 = \$4.53$

With the total operations expense equals to $\$88944$: $\text{variable cost} - \text{operations wages} = \$88944 / 1110 = \$80.13$.

Then: $\text{contribution margin} = (\text{selling price} - \text{variable cost per unit}): \$800 - (\$4.53 + \$80.13) = \$715.34$

Since Prestige Telephone Company will cover up to $\$82000$ of the total costs:

$\text{Total fixed costs} - (\$82000 - \text{average monthly hours} * \text{variable cost per unit}) / \text{contribution margin} =$
 $= 191037 - (82000 - 205 * 84.66) / 715.34 = 176.69 \text{ hours}$

Then: $\text{Break even value} = 176.69 * \$800 = \$141352 \text{ per month}$

- 2) Estimate the effect on income (for the month of March) of each of the options Rowe has suggested if Bradley estimates as follows:**

- a) Increasing the price to commercial customers to \$1,000 per hour would reduce demand by 30%.**

An increase by $\$1000$ would reduce, not increase its demand by 30%. As the example given gives, in March there was a demand for 138 hours, and a 30% reduction left demand of 97 hours.

Then: $\text{demand} * \text{contribution per hour} = \$1000 - (\$84.66 * 96.6 \text{ hours}) = \88421.85

Nowadays: $138 * (\$800 - \$84.66) = \$98716.92$

The contribution expected will then be \$1000. So, it's better to retain the \$800/hour price because the income will be higher.

- b) Reducing the price to commercial customers to \$600 per hour would increase demand by 30%.**

In march: $138 \text{ hours} * 1.3 = 179.4 \text{ hours}$

$179.4 * (\$600 - \$84.66) = \$92451.7$

In comparison with the current situation, a reduction in price would result in a reduction in profit of \$6265.22 per month.

- c) Increased promotion would increase sales by up to 30%. Bradley is unsure how much promotion this would take. (How much could be spent and still leave Prestige Data Services with no reported loss each month if commercial hours were increased 30%?)**

An increase in sales by 30% would increase sales to 179.4 hours per month. Since an hours is \$800:

$179 * (\$800 - \$84.66) = \$128045.86$

The difference between this and the current contribution is \$29328.94. This could be spent without reducing income.

- d) Reducing operations to 16 hours on weekdays and eight hours on Saturdays would result in a loss of 20% of commercial revenue hours.**

Reduce hours will reduce the demand for revenue by 20%. Than:

$$110 * (\$800 - \$84.66) = \$78687.40$$

Difference by present situation would be \$20029.52

3) Can you suggest changes in the accounting and reporting system now used for operations of Prestige Data Services which would result in more useful information for Rowe and Bradley?

- Use of standard and generally accepted financial statements.
- Take into account that some costs of the subsidiary are in fact fronts of revenues to parent company. It would be better for the company to use a marginal costing method as profit = contribution – fixed cost.