

Prestige Case

Accounting and Control Q3-21

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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?

To calculate the level of commercial sales of computer hours, it is necessary to determine the fixed and variable costs that affect this calculation. As for variable costs, we are only considering salaries and electricity costs, thus:

According to the case, the cost of electricity for the three months is: $\$1633 + \$1592 + \$1803 = 5028$. And considering that the total revenue hours from computers use is 1006 hours and total service hours was 104, the total of computer service hours is 1110.

The variable cost of power consumption per computer is $\$5028 / 1110$ hours, resulting in $\$4.53$.

Also, based on total expenses with operations being $\$88,944$ from January to March. The variable operating cost per computer is $\$88,944 / 1110$ hours, resulting in $\$80.13$.

Then, the total variable cost per unit is $\$4.53 + \80.13 , totaling $\$84.66$.

Therefore, the contribution margin is composed of the selling price subtracting the variable cost per unit: $\$800 - \84.66 , resulting in $\$715.34$.

Assuming the Prestige Telephone Company has an agreement with Prestige Data Services to cover up to $\$82,000$ of the costs. It is possible to calculate the following break-even point from the total fixed costs by subtracting the subsidy of $\$82,000$ and the monthly average hours multiplied by the variable cost per unit over the contribution margin.

In this case, the result would be: $191,037 - (82,000 - 205 \times 84.66) / 715.34 = 176.69$ hours.

Taking 176.69 hours multiplied by \$800 per hour per sale would result in a target revenue of \$141,352 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% .

Considering that in March 1997, the commercial demand was 138 hours and applying a 30% reduction on this scenario, we would have a demand of 96.6 hours.

Therefore, considering a demand of 96.6 hours and the total variable cost per unit of $\$4.53 + \80.13 , totaling \$84.66. It is possible to estimate that: $\$1000 = (\$84.66 \times 96.6 \text{ hours}) = \$88,421.85$

Comparing with the actual 138-hour scenario, applying the exact variable costs per unit (\$84,66) and \$800 per hour, we have \$98,716.92.

Therefore, the monthly contribution to fixed costs with \$800 is \$10,295.07 higher than a \$1000 contribution.

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

Lowering the retail price to \$600 per hour and a 30% increase in demand from 138 hours would result in 179.4 hours in demand.

Therefore, we would consider: $179.4 \times (600 - 84.66) = \$92,451.70$.

Comparing the current value of \$98,716.92 with the new simulation, it is possible to notice a reduction of \$6,265.22 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%?)

Increasing sales by 30% would reflect an increase of 179.40 hours per month.

With an amount of \$800 per hour, the total contribution would be: $179 \times (800 - 84.66) = \$128,045.86$.

In this case, there is an increase of \$29,328.94 over the previous amount.

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

Reducing hours would also reduce revenue by 20%, from 138 hours to 110 hours.

In this scenario, the total contribution amount would be: $110 (800 - 84.66) = \$78,687.40$.

Therefore taking a base of \$98,716.92 would result in a difference of \$20,029.52 smaller.

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?

It is necessary to show that there are costs related to the services from Prestige Data Services that directly benefits the parent company, especially when Prestige Data Services charged Prestige Telephone Company the half of the price of commercial sales. In this case, Prestige Data Services could use consolidated financial statements to show its true contributions to the Prestige Telephone Company.