

Economic managment

Literature, Russian Literature



Pepita Disco Performance The economic models present very ideal guidelines on how the performance of a company can be evaluated. The following calculations portray the performance of Pepita disco on various grounds of economy that includes effects of cost variations on the net margin and elasticity that arise due to various decisions undertaken.

Question one

a) For the case of Pepita Disco, Research and development costs happen to be fixed and as per the guiding principle which have been provided, they are not production related. For this case, the intention is to reduce the cost by ten percent. This implies that;

If 100% = 10 M (where M represents millions of UYU) then,

$$(100 - 10)\% = 90\%$$

$(90\%/100\%)*10 \text{ M} = 9 \text{ M}$ (this implies that the fixed cost has reduced by one million UYU), thus

Absolute net margin = gross margin - new fixed cost

$$= 80 \text{ M} - (10 + 9 + 40) = 21 \text{ M}$$

Consequently, % change in the net margin is given by;

$$= ((\text{New margin} - \text{old margin}) / (\text{old margin})) * 100$$

$$= ((21 - 20) / 20) * 100$$

$$= 5\%$$

b) Marketing and advertising costs also happen to be fixed and are worked in a similar manner as the research and development. Thus if 100% = 10 M,

This means that $(100 - 10)\% * 10 = 9 \text{ M}$

And this implies that absolute net margin = gross margin - new fixed cost = $80 \text{ M} - (9 + 10 + 40) = 21 \text{ M}$. Thus, % change of the net margin =

$$((21-20)/20)*100 = 5\%$$

c) Value for total fixed is $10 + 10 + 40 = 60$ M

Thus reducing fixed cost by 10% implies that new fixed cost = 90% of 60 M
= 54 M

$$\text{Absolute net margin} = 80 \text{ M} - 54 \text{ M} = 26 \text{ M}$$

$$\% \text{ change in the margin} = ((26 - 20)/20)*100 = 30\%$$

d) Reducing variable cost by 10% implies new variable cost is 90% of 120 M
= 108 M

$$\text{New absolute net margin} = 200 \text{ M} - 108 \text{ M} - 60 \text{ M} = 32 \text{ M}$$

$$\% \text{ change in net margin} = ((32-20)/20)*100 = 60\%$$

e) The new sold units are $(100 + 10)\%$ of 100 = 110 million units

$$\text{New revenue} = (110 \text{ million units}) \times (2) = 220 \text{ M}$$

Variable cost increases proportionally thus = 110% of 120 M = 132 M

$$\text{New net margin} = 220 - 132 - 60 = 28 \text{ M}$$

$$\% \text{ change in margin} ((28 - 20)/20)*100 = 40\%$$

f) Raising the price by 10% implies that new price is 110% of 2 = 2.2 UYU

$$\text{This leads to the new revenue} = 2.2 * 100 \text{ M} = 220 \text{ M}$$

$$\text{Net margin} = 220 \text{ M} - 120 \text{ M} - 60 \text{ M} = 40 \text{ M}$$

$$\% \text{ change in net margin} = ((40 - 20)/20)*100 = 100\%$$

g) Lowering the price by 10% implies new is 90% of 2 = 1.8 UYU

$$\text{New revenue} = 1.8 * 100 \text{ M} = 180 \text{ M}$$

$$\text{Net margin} = 180 \text{ M} - 120 \text{ M} - 60 \text{ M} = 0 \text{ M}$$

$$\% \text{ change in the net margin} = ((0 - 20)/20)*100 = -100\%$$

h) New unit sales 95% of 2 = 1.9 UYU and this means new revenue = 1.9

$$9 * 100 = 190 \text{ M}$$

Total fixed cost after reduction of research and development = $10 + 9 + 40$
 $= 59 \text{ M}$

Absolute margin = $190 - 120 - 59 = 11 \text{ M}$

% change in net margin = $((11-20)/20)*100 = -45\%$

i) Reducing advertising cost by 10% and reducing sales by 5% affects the figures as in the case above (h). thus net margin = 11 M and %change of net margin = -45%

j) New variable cost = 90% of 120 = 108 M

Units sold = 90% of 100 = 90 M units

Reduced sales $1.8 \times 90 = 162 \text{ M}$

Hence, absolute margin = $162 - 108 - 60 = -6 \text{ M}$

%change in net margin = $((-6 - 20)/20)*100 = -130\%$

k) New cost of wages = 110% of 40 M = 44 M

New sales value = 110% of 100 M = 220 M

Absolute margin = $220 - 124 - 60 = 36 \text{ M}$

% change of the margin = $((36-20)/20)*100 = 80\%$

l) Elasticity = $((\text{change in quantity})/\text{Average quantity})/((\text{change in price})/\text{Average price})$

New price = 110% of 2 = 2.2. This implies that average price is $(2.2 + 2)/2 = 2.1$

Let new quantity be X thus $-1.7 = ((X-100)/((X + 100)/2))/((2.2-2)/2.1)$

This implies that $X = 85.022$ million units

New revenue = $85.022 \times 2.2 = 187.048 \text{ M}$

New Net margin = $187.048 - 120 - 60 = 7.048 \text{ M}$

% change in margin = $((7.048 - 20)/20)*100 = -64.7577\%$

m) The formula applied is the same as that in part (l) above the difference being the price is changing in the reducing direction to 1.8 per unit thus letting X be new quantity sold then,

$-1.7 = ((X-100)/((X+100)/2))/((1.8-2)/((1.8+2)/2))$ and this means new quantity $X = 119.6532$ million units. This implies that the new revenue will be $= 119.6532 * 1.8 = 215.3757$ M

New absolute margin $= 215.3757 - 120 - 60 = 35.3757$ M

% change in the margin $((35.3757-20)/20)*100 = 76.8786$ %

Question 2

a) Per unit sale $= (200 \text{ M}) / (40 \text{ m units}) = 5$ UYU. Thus 10 % price results to 5.5 UYU price per item.

Calculating the new quantity X we make use of elasticity equation (which is in question 1 part l). This means $-1.7 = ((X-40)/((X+40)/2))/((5.5-5)/((5.5+5)/2))$ and this implies that $X = 34.909091$ million units. New revenue as a result of this will be $= 34.909091 * 5.5 = 203$ M. the absolute margin for Yuckles will be $= 203 - 120 - 60 = 23$ M. the % change in margin will be $= ((23 - 20)/20)*100 = 15\%$.

b) When the price reduces by 10% it implies the unit new price is 4.5. Thus using the same elasticity formula we can solve for the new quantity X i. e. $-1.7 = ((X-40)/((X+40)/2))/((4.5-5)/((4.5+5)/2)) = 42.266667$ million units. The new revenue will be $= 42.266667 * 4.5 = 190.2$ M. The new absolute margin will be $190.2 - 120 - 60 = 10.2$ M and the % change of the margin is $((10.2 - 20)/20)*100 = -49\%$