Key

Econ 337 Agricultural Marketing, Spring 2020
In Class Activity 5, March 10, 2020

1) You have been asked to evaluate the impact of a price change for the ECON 337 Steak Company. Your company currently sells boneless ribeye steaks for $12 per lb, and at this price typical annual sales are 10,000 lbs per year. Your marketing director wants to gain some market share and is considering lowering the price of your ribeyes to $11.00 per lb and wants to know how sales would be affected by this price decrease. Your market research department estimates that the own-price elasticity of your ribeye steaks is -0.80. If the price is lowered to $11.00 per lb, how many lbs would you expect the ECON 337 Steak Company to sell per year?

$$\text{Price Elasticity of Demand} = \frac{\% \text{ Change in Quantity Demanded}}{\% \text{ Change in Price}}$$

% Change in Quantity Demanded = Price Elasticity of Demand $*$ % Change in Price
% Change in Quantity Demanded = $-0.80 * -0.0833$
% Change in Quantity Demanded = 0.067 or 6.7%

lbs sold at $11 per lb price = $10,000 + (10,000 * 0.067) = 10,667$

2) In 2018, your company sold 1,100 lbs of flank steak at $6.00 per lb. The own-price elasticity of demand for flank steak has been established to be -0.60. In 2019, your company lowered its price to $5.80 and sold 1,220 lbs of flank steak.

The table below shows prices and unit sales for 2018 and 2019. Assuming the elasticity estimate is correct, does the sales volume in 2019 suggest that demand increased, decreased, or stayed the same?

	2018	2019
Avg. Price	$6.00	$5.80
Volume Sold	1,100	1,220

$$\text{Price Elasticity of Demand} = \frac{\text{\% Change in Quantity Demanded}}{\text{\% Change in Price}}$$

% Change in Quantity Demanded = Price Elasticity of Demand * % Change in Price
% Change in Quantity Demanded = −0.60 * −0.0333
% Change in Quantity Demanded = 0.020 or 2.0%

lbs sold at $5.80 per lb price = 1,100 + (1,100 * 0.020) = 1,122 lbs

Demand increased

Key

3) The ABC sausage company has asked you to comment on their pricing strategy. They currently produce a whole-hog sausage at a cost of $1.50 per lb. This sausage currently sells for $2.00 per lb, netting them $0.50 per lb sold. At a price of $2.00 per lb, they sell 500,000 lbs per year. They are exploring the possibility of raising that price to $2.25.

You know from research that the own-price elasticity for whole-hog sausage is -0.75. Would you recommend they raise the price or not, why?

$$\text{Price Elasticity of Demand} = \frac{\% \text{ Change in Quantity Demanded}}{\% \text{ Change in Price}}$$

% Change in Quantity Demanded = Price Elasticity of Demand * % Change in Price
% Change in Quantity Demanded = $-0.75 * 0.1250$
% Change in Quantity Demanded = -0.0938 or -9.38%

lbs sold at $2.25 per lb price = $500,000 + (500,000 * -0.0938) = 453,100$ lbs

$500,000 * \$0.50 = \$250,000$

$453,100 * \$0.75 = \$339,825$

Yes, they should raise their price. They would make $89,825 more.