JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

(Format for Preparing E Notes)

Faculty of Education and Methodology

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Program-   Msc Textile

Course Name -   Apparel Costing

Session No. & Name –   Price elasticity of Demand and Supply

Price elasticity of Demand and Supply

Price elasticity is the ratio between the percentage change in the quantity demanded (Qd) or supplied (Qs) and the corresponding percent change in price. The price elasticity of demand is the percentage change in the quantity *demanded* of a good or service divided by the percentage change in the price. The price elasticity of supply is the percentage change in quantity *supplied* divided by the percentage change in price.

Both the demand and supply curve show the relationship between price and the number of units demanded or supplied. Price elasticity is the ratio between the percentage change in the quantity demanded (Qd) or supplied (Qs) and the corresponding percent change in price. The price elasticity of demand is the percentage change in the quantity demanded of a good or service divided by the percentage change in the price. The price elasticity of supply is the percentage change in quantity supplied divided by the percentage change in price.

Elasticity's divide into three broad categories: elastic, inelastic, and unitary. Because price and quantity demanded move in opposite directions, price elasticity of demand is always a negative number. Therefore, price elasticity of demand is usually reported as its absolute value, without a negative sign. The summary in Table 5.1 is assuming absolute values for price elasticity of demand. An elastic demand or elastic supply is one in which the elasticity is greater than one, indicating a high responsiveness to changes in price. Elasticities that are less than one indicate low responsiveness to price changes and correspond to inelastic demand or inelastic supply. Unitary elasticities indicate proportional responsiveness of either demand or supply, as Table 5.1 summarizes.

To calculate elasticity along a demand or supply curve economists use the average percent change in both quantity and price. This is called the Midpoint Method for Elasticity, and is represented in the following equations:

 The advantage of the Midpoint Method is that one obtains the same elasticity between two price points whether there is a price increase or decrease. This is because the formula uses the same base (average quantity and average price) for both cases.

Calculating   Price   Elasticity   of   Demand   Calculate
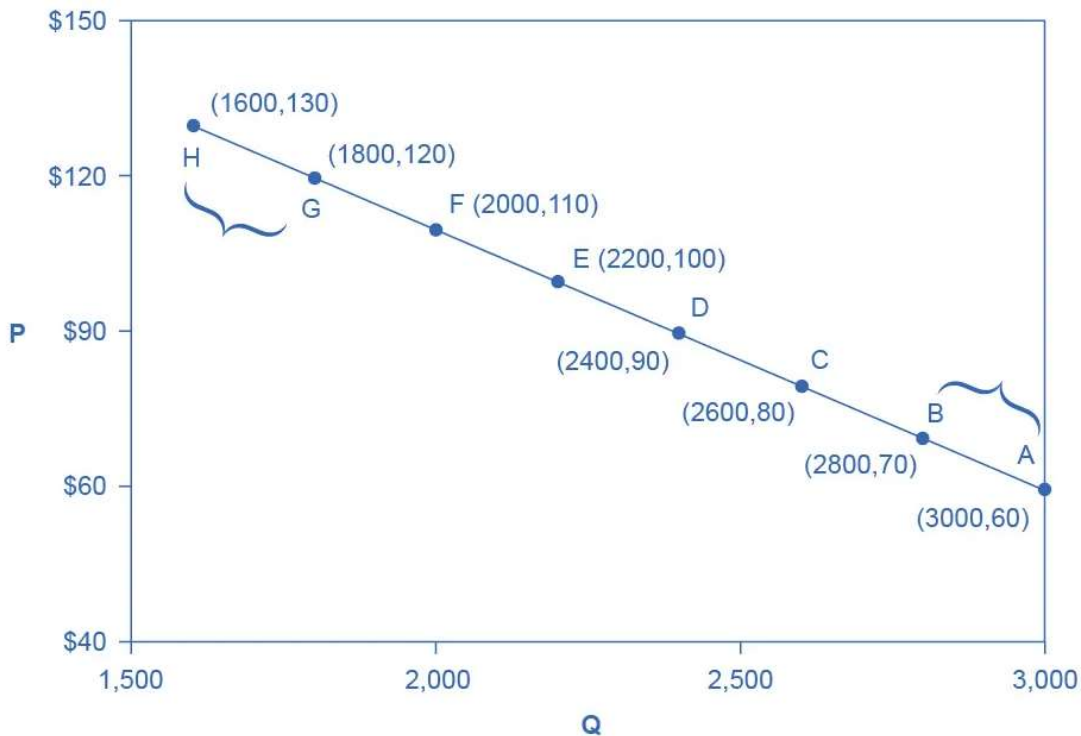
$$\% \text{ change in quantity} = \frac{3{,}000-2{,}800}{(3{,}000+2{,}800)/2} \times 100$$
$$= \frac{200}{2{,}900} \times 100$$
$$= 6.9$$
$$\% \text{ change in price} = \frac{60-70}{(60+70)/2} \times 100$$
$$= \frac{-10}{65} \times 100$$
$$= -15.4$$
$$\text{Price Elasticity of Demand} = \frac{6.9\%}{-15.4\%}$$
$$= 0.45$$

The elasticity between points A and B and between points G and H as Figure 1.1shows.

This graph illustrates a downward-sloping demand curve. Different price and quantity demanded combinations are shown, with different letters representing those points. The top left combination is point H, a price of 130 dollars and quantity of 1600. The next point is point G, a price of 120 dollars and quantity of 1800. Moving down the demand curve the last two points illustrated are B and A. B is price of 70 dollars and quantity of 2800. A is a price of 60 dollars and quantity of 3000. These points and their different prices and quantities can be used to calculate price elasticity of demand.

.First, apply the formula to calculate the elasticity as price decreases from $70 at point B to $60 at point Therefore, the elasticity of demand between these two points is which is 0.45, an amount smaller than one, showing that the demand is inelastic in this interval. Price elasticity's of demand are always negative since price and quantity demanded always move in opposite directions (on the demand curve). By convention, we always talk about price elasticities of demand as positive numbers. Mathematically, we take the absolute value of the result. We will ignore this detail from now on, while remembering to interpret elasticities as positive numbers.

This means that, along the demand curve between point B and A, if the price changes by 1%, the quantity demanded will change by 0.45%. A change in the price will result in a smaller percentage change in the quantity demanded. For example, a 10% increase in the price will result

in only a 4.5% decrease in quantity demanded. A 10% decrease in the price will result in only a 4.5% increase in the quantity demanded. Price elasticities of demand are negative numbers indicating that the demand curve is downward sloping, but we read them as absolute values. The following Work It Out feature will walk you through calculating the price elasticity of demand.