

Price elasticity of demand (PED or Ed) is a measure used in economics to show the responsiveness, or elasticity, of the quantity demanded of a good or service to a change in its price.

$$E_d = \frac{\frac{P_1 + P_2}{2}}{\frac{Q_{d1} + Q_{d2}}{2}} \times \frac{\Delta Q_d}{\Delta P} = \frac{P_1 + P_2}{Q_{d1} + Q_{d2}} \times \frac{\Delta Q_d}{\Delta P}$$

Ed = (1.5+2)/(1000+900)*(900 - 1000)/(2 - 1.5) = -3.5/1900*100/0.5 = -7/19, so the demand is inelastic or relatively inelastic.