Price Elasticity of Demand Formula

Price elasticity of demand is defined as the percentage change in the quantity demanded of a good or service by the percentage change in the price. In other words, price elasticity of demand is the rate at which the demand increases or decreases with corresponding change in price.

Demand for a product can be either elastic or inelastic. It is said to be elastic when the change in demand is seen to be proportionately larger in comparison to the change in price. Demand is considered to be inelastic when change in demand is smaller than the change in price.

The slope of the demand curve is the price elasticity of demand. As the demand curve steepens, there will be rapid changes in demand, which shows elasticity, while a flatter curve leads to change in demand at a slow rate, thereby denoting inelastic demand.

The price elasticity of demand formula is mathematically represented as

Price Elasticity of Demand (PED) = %∆ in Qd / %∆ in P

Where,

%∆ in Qd = Percentage change in quantity demanded.

%∆ in P = Percentage change in price.

The PED or Price Elasticity of Demand is always negative, which in other words means that there exists an inverse relationship between the price and demand.

A value of PED which is lesser than 1 is considered as relatively inelastic demand, while a value more than 1 suggests relatively elastic demand.