What is Price Elasticity?

Posted by Moira McCormick on October 12, 2015

Price Elasticity is a measure of the relationship between a change in the quantity demanded of a particular good and a change in its price. Price Elasticity of Demand (PED) is a term used in economics when discussing price sensitivity. The formula for calculating price elasticity of demand is:

Price Elasticity of Demand = % Change in Quantity Demanded / % Change in Price

If a small change in price is accompanied by a large change in quantity demanded, the product is said to be elastic (or responsive to price changes). On the other hand, a product is deemed inelastic if a large change in price is accompanied by a small amount of change in quantity demanded.

So, why is Price elasticity of demand (PED) so important for your firm?

Gathering data on how consumers respond to changes in price can help reduce your risk and that nagging feeling of uncertainty. It will help with forecasting your sales and setting prices. For instance, you can forecast the impact of a change in price on sales volume and sales revenue.

For example, if PED for a product is (-) 2, a 10% reduction in price (say, from £10 to £9) will lead to a 20% increase in sales (say from 1000 to 1200). In this case, your revenue would increase from £10,000 to £10,800.

Having a knowledge of PED helps you decide whether to raise or lower prices, or whether to price discriminate. Price discrimination is a policy of charging consumers different prices for the same product. If demand is elastic, revenue is gained by reducing the price, but if demand is inelastic, revenue is gained by raising the price. When PED is highly elastic, you can use advertising and other promotional techniques to reduce elasticity.

There are several reasons why consumers may respond elastically or inelastically to a price change, including:

1. The number and 'closeness' of the competition

If your product is unique and desirable it is likely to exhibit an inelastic demand with respect to price. An example would be Apple iPhones and iPads. The Apple brand is so strong that many consumers will pay a premium for Apple products. If the price rises for an Apple iPhone, many will continue to buy. Alternatively, take Heinz soup. These days there are many good alternatives to Heinz. If the price rises, people will switch to less expensive varieties.

2. How essential/necessary is your product?

A necessity like bread will be demanded inelastically with respect to price. However, 'own brand' bread will be highly price elastic because there are many better alternatives. If the price of this bread rises, consumers will switch to alternatives.

3. Is your product habit forming?

Consumers are relatively insensitive to changes in the price of habitually demanded products, e.g. alcohol, tobacco. These habitual goods have become necessary to them and will be purchased irrespective of changes in price. If, for instance, cigarette tax increases and the price of all tobacco increases, demand will be inelastic because many smokers are addicted and don’t have any alternatives but to keep buying.

4. What proportion of total income is spent on your product?

The PED for a bar of chocolate is likely to be much lower than that for a new car, for example!

5. How loyal are your customers?

Brand loyalty reduces sensitivity to price changes and reduces PED.

6. Do you use advertising effectively?

You can use persuasive advertising across a range of media to win new customers and retain the loyalty of existing ones. Advertising will increase demand and make that demand less elastic.

7. What is the life cycle of your product?

PED will vary according to where your product is in its life cycle. If you have just launched the product and there are few competitors, PED is relatively inelastic. However, as other firms jump on the bandwagon and produce similar products, the wider choice increases PED. If your product has been 'out there' a while and is at the end of its life cycle, consumers can become very responsive to price. Discounting is extremely common at this stage.

Sources

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