Introduction to Microeconomics

Elasticity - 03

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Total Expenditure

- Total Expenditure (TE) = Price X Quantity bought
  If you buy 5 apples at a price of 10tk per unit then
  TE = 10 X 5 = 50 BDT
- According to the Law of Demand - if price goes up, Quantity demand fall. If price goes up, what happens to the TE?
  $\rightarrow$ The shift in TE depends on elasticity of the good.

Suppose the demand is elastic, meaning, if the price increases by 1% then the quantity demand will fall by **more** than 1%.
Assuming, P = 100, Q = 100; TE = 10000
P' = 110 (10% increase), Q' = 80 (20% decrease); TE = 110 X 80 = 8800. Thus, TE$\downarrow$ if $\uparrow$P when we are dealing with elastic good.

Suppose the demand is inelastic, meaning, if the price increases by 1% then the quantity demand will fall by **less** than 1%.
Assuming, P = 100, Q = 100; TE = 1000 BDT
P' = 120 (20% increase), Q' = 90 (10% decrease); TE = 120 X 90 = 10800 BDT. Thus, TE↑ if ↑P when we are dealing with inelastic good.

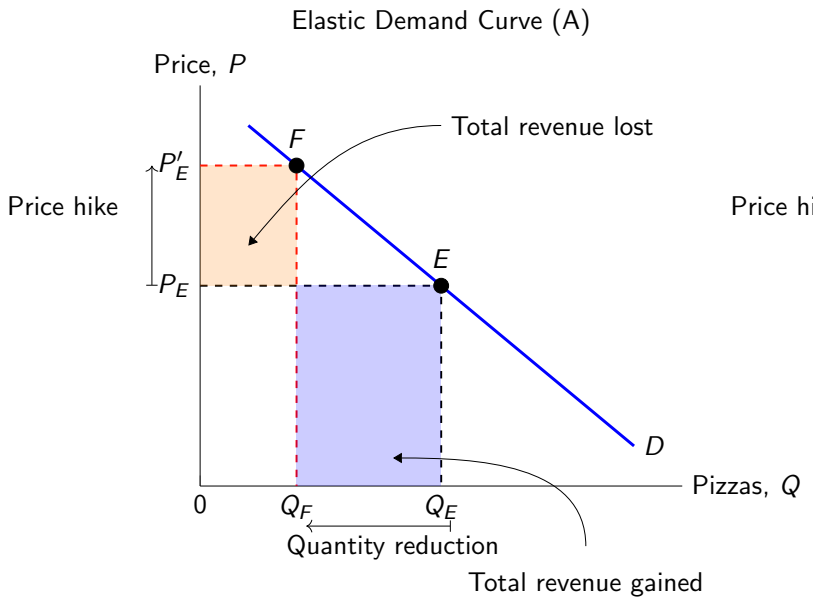
Total Revenue

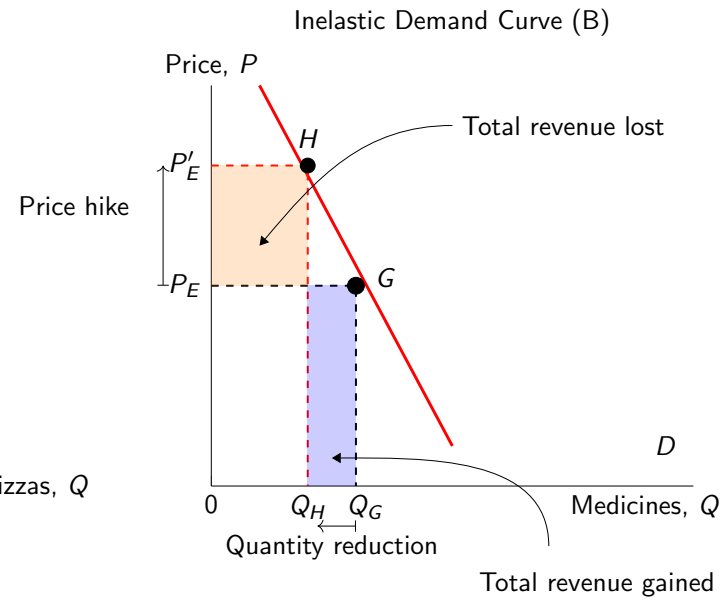
Total Revenue (TR): The amount received by the seller of the goods.
TR = Price X Quantity

- Shift in TR depends on elasticity

Company A is planning to increase their revenue by increasing their price. The good they sell has elastic demand. The current price per unit is 100 BDT and Quantity demand for their good is 100 units. Current total revenue is 1000 BDT. Will it be a good idea to increase their price?

Graphs


Elastic Demand Curve (A)
Price, P
Total revenue lost
F
P'_E
Price hike
E
P_E
D
Pizzas, Q
0
Q_F
Q_E
Quantity reduction
Total revenue gained


Inelastic Demand Curve (B)
Price, P
Total revenue lost
H
P'_E
Price hike
G
P_E
D
Medicines, Q
0
Q_H
Q_G
Quantity reduction
Total revenue gained