

productivity

$$\text{productivity} = \frac{\text{output}}{\text{inputs}}$$

Input process output

* output $\rightarrow$ No. of units produced $\times$ selling price/unit

* Inputs $\rightarrow$ Labor = No. of workers $\times$ No. of hrs $\times$ salary

$\rightarrow$ Machines

$\rightarrow$ overhead

$\rightarrow$ Capital

$$* \text{ partial productivity} = \frac{\text{output}}{\text{single input}}$$

$$\text{Ex} \ll \text{ labor productivity} = \frac{\text{output}}{\text{labor}}$$

$$* \text{ Multifactor productivity (M.F.P)} = \frac{\text{output}}{\text{multiple inputs}}$$

$$\text{Ex} \ll \frac{\text{output}}{\text{machines} + \text{Labor} + \text{Capital}}$$

$$* \text{ Total productivity} = \frac{\text{output}}{\text{all inputs}}$$

$$* \text{ productivity growth} = \frac{\text{New} - \text{old}}{\text{old}} \times 100$$

+ve $\rightarrow$ increase
-ve $\rightarrow$ decrease

Ex

Ali and Omar work in a factory. In one day, Ali produces 100 items, and Omar produces 80 items. However, Ali works 10 hours, while Omar works only 6 hours. Who is more productive? Why?

Ali → output = 100 items

Inputs = 10 hrs

$$\text{productivity} = \frac{100 \text{ items}}{10 \text{ hrs}} = \underline{10} \text{ item/hr}$$

Omar → output = 80 items

inputs = 6 hrs

$$\text{productivity} = \frac{80 \text{ items}}{6 \text{ hrs}} = \underline{13.3} \text{ item/hr}$$

* Omar is more productive than Ali → productivity of Omar is more than Ali