

Nama / NIM : ADIYAT DIKA TAUDI / 20106054

1. Aliran Kas

$$\begin{aligned} T_0 &= \text{Biaya Investasi} + \text{Modal akhir} \\ &= - (10.000 + 200) \\ &= - 10.200 \end{aligned}$$

$$\begin{aligned} T_1 &= - 1.000 - 2.000 \times 250 \\ &= 4.750 \end{aligned}$$

$$\begin{aligned} T_2 &= 7000 - 2000 - 300 \\ &= 4.700 \end{aligned}$$

$$\begin{aligned} T_3 &= 7000 - 2000 - 200 \\ &= 4.800 \end{aligned}$$

$$\begin{aligned} T_4 &= 7000 - 2000 \\ &= 5.000 \end{aligned}$$

2. Metode NPV

$$\text{bunga} = 22\%$$

$$\begin{aligned} NPV &= \left[\frac{4.750}{1 + (0,22)^1} + \frac{4.700}{1 + (0,22)^2} + \frac{4.800}{1 + (0,22)^3} + \frac{500}{1 + (0,22)^4} \right] - 10.200 \\ &= (3.894 + 4485 + 4749 + 4988) - 10.200 \\ &= 18.116 - 10.200 \\ &= 7.916 \end{aligned}$$

Karena nilai NPV positif maka investasi tsb berhasil / layak

$$22\% \times 7.916 = 1.742$$

$$25\% \times 7.916 = 1.979$$

$$IRR = \frac{1.742}{1.979} \times 25\%$$

$$= 1.979$$

$$= 0,22$$

$$\text{Maka: } 10.200 \rightarrow \left[\frac{4.750}{1 + (0,22)^1} + \frac{4.700}{1 + (0,22)^2} + \frac{4.800}{1 + (0,22)^3} \right]$$

$$10.200 \rightarrow 18.116$$

Karena hasil metode IRR lebih besar dari investasi atau maka investasi tsb layak

3. proyek A

$$NPV = \left(\frac{3.362.000}{(1+0,10)^1} + \frac{3.362.000}{(1+0,10)^2} + \frac{3.362.000}{(1+0,10)^3} + \frac{3.362.000}{(1+0,10)^4} \right) - 10.000.000$$

$$= 10.657.088 - 10.000.000$$

$$= 657.088$$

Proyek B

$$NPV = \left(\frac{13.605.000}{(1+0,10)^4} \right) - 10.000.000$$

$$= 9.272.398 - 10.000.000$$

$$= -707.602$$

Proyek C

$$NPV = \left(\frac{1.000.000}{(1+0,10)^1} + \frac{3.000.000}{(1+0,10)^2} + \frac{6.000.000}{(1+0,10)^3} + \frac{7.000.000}{(1+0,10)^4} \right) - 10.000.000$$

$$= 12.677.413 - 10.000.000$$

$$= 2.677.413$$

IRR Proyek A

$$10\% \times 657.088 = 65.709$$

$$13\% \times 657.088 = 85.421$$

$$IRR = \frac{65.709}{85.421} \times 13\%$$

$$= 0,10 \quad | \quad 10\%$$