

NAMA : SARI PENITA

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MAKUL : MANAJEMEN KEUANGAN (ANALISIS USULAN INVESTASI)

Jawaban

1) Aliran kas

$$\begin{aligned}T_0 &= \text{Biaya Investasi} + \text{Modal akhir} \\ &= -(16.000 + 200) \\ &= -10.200\end{aligned}$$

$$\begin{aligned}T_1 &= 7000 - 2000 - 250 \\ &= 4.750\end{aligned}$$

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

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

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

2) Metode NPV

bunga : 22%.

$$NPV = \left[ \frac{4.750}{1 + (0,22)^1} + \frac{4.700}{1 + (0,22)^2} + \frac{4.800}{1 + (0,22)^3} + \frac{5000}{1 + (0,22)^4} \right] - 10.200$$

$$= [ 3.894 + 4.485 + 4749 + 4988 ] - 10.200$$

$$= 18.116 - 10.200$$

$$= ~~18.116~~ 7.916$$

Karena nilai NPV positif maka investasi tersebut berhasil/layak

Metode IRR

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

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

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

$$= 0,22$$

Maka :

$$10.200 \rightarrow \left[ \frac{4.750}{1 + (0,22)^1} + \frac{4.700}{1 + (0,22)^2} + \frac{4.800}{1 + (0,22)^3} + \frac{5000}{1 + (0,22)^4} \right]$$

$$10.200 \rightarrow 18.116$$

Karena hasil metode IRR lebih besar dari investasi awal, maka investasi tersebut layak.

## Proyek A

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

$$= 10.657.088 - 10.000.000$$

$$= 657.088$$

## Proyek B

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

$$= 9.292.398 - 10.000.000$$

$$= -707.602$$

## Proyek C

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

$$= 12.677.413 - 10.000.000$$

$$= 2.677.413$$

IRR  $\rightarrow$  Proyek A

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

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

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

$$= 0,10$$

$$= 10\%$$

IRR Proyek B

$$10\% \times (-707.602) = -70.760$$

$$15\% \times (-707.602) = -91.988$$

$$\text{IRR} = \frac{-70.760 \times 13\%}{-91.988 - 0,77 \times 13\%} = \frac{-9.200}{-91.988} = 10\%$$

IRR Proyek B

$$10\% \times 2.677.413 = 267.741$$

$$13\% \times 2.677.413 = 348.064$$

$$\text{IRR} = \frac{267.741 \times 13\%}{348.064} = 10\%$$

a) Jika Menggunakan proyek Independent proyek yang diterima/layak yaitu proyek A & C

b) Jika Menggunakan proyek Mutually exclusive proyek C lebih baik