

No. _____

Date : _____

Nama = Sindi Lupita Sari

Nim = 2010601017

Prodi = Manajemen

1. Aliran Kas

$T_0 = \text{Biaya Investasi} + \text{Modal akhir}$

$= -(10.000 + 200)$

$= -10.200$

$T_1 = 7000 - 2000 - 250$

$= 4.750$

$T_2 = 7000 - 2000 - 300$

$= 4.700$

$T_3 = 7000 - 2000 - 200$

$= 4800$

$T_4 = 7000 - 2000$

$= 5.000$

$$\begin{aligned}
 8. * \text{ payback period} &= 4.750 + 4.700 + \left(\frac{4800}{1100}\right) \\
 &= 1\text{th} + 1\text{th} + 0,1562\text{s} \\
 &= 2,16 \text{ tahun} / 12 = 0,18 \\
 &= 2 \text{ tahun 2 bulan}
 \end{aligned}$$

* Net present Value

$$\begin{aligned}
 22\% \text{ NPV} &= \frac{4750}{(1+0,22)^1} + \frac{4700}{(1+0,22)^2} + \frac{4800}{(1+0,22)^3} + \frac{5000}{(1+0,22)^4} - 10.200 \\
 &= \frac{4.750}{1,22} + \frac{4700}{1,4884} + \frac{4800}{1,8158} + \frac{5000}{2,2153} - 10.200 \\
 &= 3893 + 3157 + 2643 + 2257 - 10.200 \\
 &= 11.950 - 10.200 \\
 &= 1750
 \end{aligned}$$

$$\begin{aligned}
 25\% \text{ NPV} &= \frac{4.750}{(1+0,25)^1} + \frac{4.700}{(1+0,25)^2} + \frac{4800}{(1+0,25)^3} + \frac{5000}{(1+0,25)^4} - 10.200 \\
 &= \frac{4.750}{1,25} + \frac{4700}{1,5625} + \frac{4800}{1,953} + \frac{5000}{2,441} - 10.200 \\
 &= 3800 + 2998 + 2457 + 2048 - 10.200 \\
 &= 1133 - 10.200 \\
 &= 1113
 \end{aligned}$$

$$\text{IRR} = \frac{1750}{1113} \times 25\%$$

$$= 39,3\% > 22\%$$

Maka usulan investasi tersebut layak dilakukan.

3. - perusahaan A

Net present Value

$$\begin{aligned}
 10\% \text{ NPV} &= \frac{3.362.000}{(1+0,1)^1} + \frac{3.362.000}{(1+0,1)^2} + \frac{3.362.000}{(1+0,1)^3} + \frac{3.362.000}{(1+0,1)^4} - 10.000.000 \\
 &= \frac{3.362.000}{1,1} + \frac{3.362.000}{1,21} + \frac{3.362.000}{1,331} + \frac{3.362.000}{1,4641} - 10.000.000 \\
 &= 3.056.363 + 2.778.512 + 2527.810 + 2.269.291 - 10.000.000 \\
 &= 10.631.985 - 10.000.000 = 631.985
 \end{aligned}$$

$$\begin{aligned}
 12\% \text{ NPV} &= \frac{3.362.000}{(1, + 0,12)^1} + \frac{3.362.000}{(1 + 0,12)^2} + \frac{3.362.000}{(1 + 0,12)^3} + \frac{3.362.000}{(1 + 0,12)^4} - 10.000.000 \\
 &= \frac{3.362.000}{1,12} + \frac{3.362.000}{1,2544} + \frac{3.362.000}{14.049} + \frac{3.362.000}{1,573} - 10.000.000 \\
 &= 3.001.785 + 2.688.165 + 2.393.005 + 2136.661 - 10.000.000 \\
 &= 10.211.616 - 10.000.000 = 211.616 //
 \end{aligned}$$

$$\text{IRR} = \frac{631.985}{211.616} \times 12\%$$

= 35,8% > 10% maka proyek layak dibrekan (disetujui)

- Perusahaan B

Kas masuk th 1,2,3 = 0, tahun 4 = 13.605.000

$$\begin{aligned}
 10\% \text{ NPV} &= \frac{13.605.000}{(1 + 0,1)^4} - 10.000.000 \\
 &= 9.292.398 - 10.000.000 \\
 &= -707.601
 \end{aligned}$$

$$\begin{aligned}
 12\% \text{ NPV} &= \frac{13.605.000}{(1 + 0,12)^4} - 10.000.000 \\
 &= \frac{13.605.000}{1,5735} \\
 &= 8.646.223 - 10.000.000 \\
 &= -1.353.776
 \end{aligned}$$

$$\text{IRR} = -707.601 \times 12\%$$

$$= \frac{-1.353.776}{0,5226} \times 10\%$$

= 0,068% < 10% tidak disetujui

