



UNIVERSITY OF THE PEOPLE

BUS 4404-01 PRINCIPLES OF FINANCE 2 - AY2024-T3

WRITTEN ASSIGNMENT UNIT 3

INSTRUCTOR: SHWETA POOJARI

In order to expand its bottled water business, a local company is considering the acquisition of additional equipment. It plans to buy the equipment. The total cost of the equipment (as one initial payment at the beginning of the project) is \$200,500. During the time span of its use, the equipment is expected to produce net cash inflows of \$67,000 each year. The equipment is expected to be used for 4 years, then re-sold in the used-equipment market for \$25,000. The discount rate (the rate of return assumption for the project) is 12%. What is the net present value (NPV) of this project?

1st Method

CF_0	CF_1	CF_2	CF_3	CF_4
-200,500	67,000	67,000	67,000	67,000 +25,000

Resold Value = 25,000

Rate = 12%

NPV = ?

$CF_0 = -200,500$

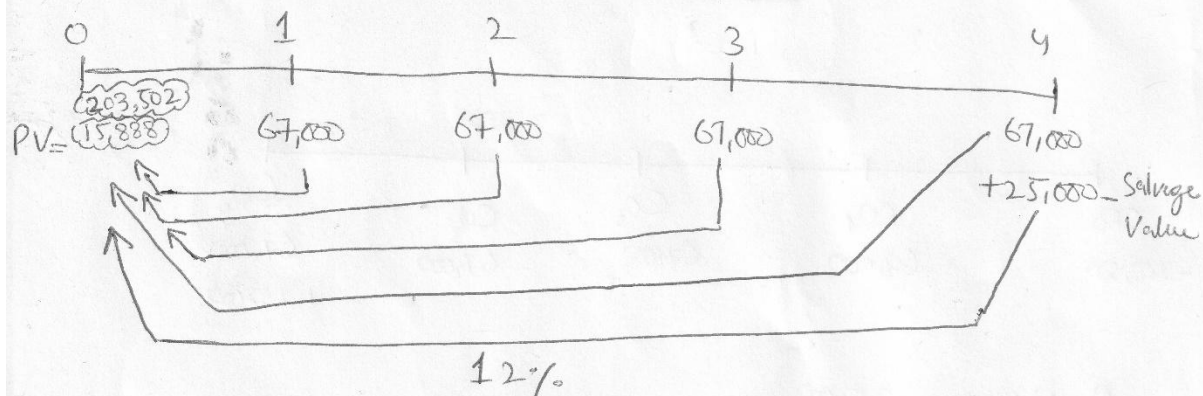
$CF_1 = 67,000$

$F_0 = 3$

$CF_2 = 92,000 \quad (67,000 + 25,000)$

NPV = 18,890

2nd Method



$$PMT = 67,000$$

$$FV = 25,000$$

$$I/y = 12\%$$

$$N = 4$$

$$PV = 219390$$

Now compute NPV

$$NPV = PV \text{ of initial investment} - \left(\sum \text{PV of Cash inflows} + \text{PV of Salvage Value} \right)$$

$$200,500 - (203,502 + 15,888)$$

$$200,500 - 219390$$

$$NPV = 18,890$$