In finance, the net present value (NPV) of a time series of cash flows, both incoming and outgoing, is defined as the sum of the present values (PVs) of the individual cash flows of the same entity.
In the case when all future cash flows are incoming (such as coupons and principal of a bond) and the only outflow of cash is the purchase price, the NPV is simply the PV of future cash flows minus the purchase price (which is its own PV). NPV is a central tool in discounted cash flow (DCF) analysis and is a standard method for using the time value of money to appraise long-term projects. Used for capital budgeting and widely used throughout economics, finance, and accounting, it measures the excess or shortfall of cash flows, in present value terms, above the cost of funds.
NPV can be described as the “difference amount” between the sums of discounted: cash inflows and cash outflows. It compares the present value of money today to the present value of money in the future, taking inflation and returns into account.

Cash flow (R) = Income + Depreciation - Fixed Cost - Variable cost

i = 10%

NPV = sum of discounted cash flows

Year (t)	Depreciation	Fixed cost	Variable cost	Income	Cash flows	Discounted Cash Flows
0		76000		10000	-66000	-66000
1	10857,1429		14400	34000	30457,1429	27688,31169
2	10857,1429	10000	14400	34000	20457,1429	16906,72963
3	10857,1429		14400	34000	30457,1429	22882,90222
4	10857,1429	10000	14400	34000	20457,1429	13972,50383
5	10857,1429		14400	34000	30457,1429	18911,48944
6	10857,1429	10000	14400	34000	20457,1429	11547,52383
7	10857,1429		14400	34000	30457,1429	15629,33012
					NPV =	61538,79075

$$\mathrm{NPV}(i,N) = \sum_{t=0}^{N} \frac{R_t}{(1+i)^t}$$

As NPV > 0, the project will be profitable and efficient, so the new machine should be purchased