

Analytical research

Business



**ASSIGN
BUSTER**

Course

Date

Analysis of Net Present Value (NPV) and Internal Rate of Return (IRR)

Net present value (NPV) denotes the sum of the present values within cash flows or time series that are both incoming and outgoing. These are usually of separate cash flows for the same entity. On the other hand, Internal Rate of return (IRR) denotes the return rate that is applied in capital budgeting so as to offer a basis of comparison on the profitability of investments. An analysis of the cash flow in question (b) reveals that the cash flow increases as the number of years increases over the 5 year projected period. On the other hand, an analysis of the Net Present Value indicates a positive value. Therefore, in terms of assessing the viability of the company's project it is profitable and worth placing future investments. The relationship between Net Present Value and Internal Rate Return is that IRR can be used to determine the NPV by use of the discounted cash flow method in financial analysis. both of them consider time value of money. In this regard, the IRR, that is also referred to as the discount rate, will result to a positive and negative series of cash flows to a Net present value of the current value of investment money or zero.

Calculations

(A) INCOME STATEMENT

YEAR 1 2 3 4 5

REVENUE(\$) 150000 162000 174960 188956. 8 204073. 34

<https://assignbuster.com/analytical-research/>

EXPENSES (60000) (66000) (72600) (79860) (87846)
 DISCOUNT(11%) (6600) (7260) (7986) (8784. 6) (9663. 06)
 DEPRECIATION (10000) (10000) (10000) (10000) (10000)
 NET PROFIT 73400 78740 94374 90312. 2 96564. 20
 TAX@25% (18350) (19685) (23593. 5) (22578. 05) (24141. 05)
 OPERATION 55050 59055 70780. 5 67734. 15 72423. 15
 PROFIT

(B)CASHFLOW STATEMENT

YEAR 1 2 3 4 5

NET PROFIT 73400 78740 94374 90312. 2 96564. 20
 DEPRECIATION (10000) (10000) (10000) (10000) (10000)
 PROFIT AFTER 63400 67740 84374 80312. 2 86564. 20
 DEPRECIATION
 TAX@25% (15850) (16935) (21093. 5) (20078. 05) (216416. 05)
 PROFIT AFTER 47550 50805 63280. 5 60234. 15 649248. 15
 TAX

DEPRECIATION 10000 10000 10000 10000 10000
 CASHFLOW 57550 60805 73280. 5 70234. 15 659248. 15

(C) NET PRESENT VALUE

YEAR PROJECTED CASHFLOWS NPVIF 8% PRESENT VALUE

1 57550 0. 952454810. 60
 2 60805 0. 907055150. 135
 3 73280. 50. 863863299. 6959
 4 70234. 150. 822757781. 6352
 5 659248. 150. 7835516520. 9255

Present value= 747562. 9916

Initial investment (0)

Net Present Value 747562. 9916

(D) INTERNAL RATE OF RETURN

$HDR + LDR (NPVLDR - NPVIRR)$

$(NPVHDR - NPVLDR)$

References

Beaton, W. R. (1975). Real estate finance. Englewood Cliffs, N. J.: Prentice-Hall.

Moyer, R. C., & McGuigan, J. R. (1981). Contemporary financial management. St. Paul: West Pub. Co..