

# Capital Alchemy: Transforming Budgets into Investments

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AFC Ltd., a prominent Disperse Dye manufacturer in India, initiated its operations in 1991. Holding an extensive inventory of over 150 dyes, AFC Ltd. stands out as one of the rare producers that offer a comprehensive range of commercially available Disperse Dyes. M/s. AFC Ltd. Dyes & Chemicals is backed by a robust ECO Laboratory, R&D facilities, and a process of backward integration.

Situated in the Surat District of South Gujarat, AFC Ltd. ensures the delivery of high-quality products that adhere to international standards. The company's laboratories are attuned to modern developmental requirements and staffed by qualified technical experts.

AFC Ltd.'s core strengths lie in its commitment to environmental responsibility, employee occupational health and safety, and product excellence. These attributes have positioned AFC Ltd. as the preferred supplier for both domestic and international clientele.

The consistent quality of AFC Ltd.'s products has continually boosted global demand. The company's global reach spans across various regions, including South Asian countries, the Middle East, the USA, and Central Americas. AFC Ltd. aims to remain closely connected with emerging players, particularly in the exploration of new markets and end-user segments.

Having achieved sustained growth, AFC Ltd. has secured a prominent standing in the business landscape. Its reputation in the market is built upon a foundation of quality, vision, and attentive service. Collaborating with global partners, AFC Ltd. actively seeks innovative and sustainable manufacturing solutions.

It is considering the purchase of machine for the use in their own business. The initial cost is Rs. 60,00,000. The life of machine is estimated to be five years, after which it would have to be scrapped with Rs. 10,00,000 salvage value. The machine will be depreciated with 20% as per straight line method. The manager has derived the following estimates for annual revenues and cost for the next five years.

|                       | Year 1    | Year 2    | Year 3    | Year 4    | Year 5    |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Revenues Predictions  | 33,00,000 | 33,00,000 | 35,00,000 | 38,00,000 | 40,00,000 |
| Raw material costs    | 3,30,000  | 3,50,000  | 3,60,000  | 380000    | 4,00,000  |
| Repairs & maintenance | 80,000    | 1,30,000  | 1,50,000  | 160000    | 1,80,000  |
| Other costs           | 13,00,000 | 13,50,000 | 14,00,000 | 1360000   | 14,20,000 |

The machine would be purchased at the beginning of the year (i.e., in Year 0) and all revenues and expenditures shown in the table above would be incurred at the end of each relevant year.

Assume company is in initial stage and don't have any tax liability. A business consultant has advised management that they should use a weighted average cost of capital (WACC) of 10 percent to evaluate this project.

1. Prepare a table showing the estimated net cash flows for each year of the project. (10 Marks)
2. Calculate the project's Net Present Value (NPV). (5 Marks)
3. Calculate the project's Internal Rate of Return (IRR). (10 Marks)
4. Which is the three evaluation techniques that you computed (i.e., IRR and NPV), should the firm use to make its decision of whether or not to accept this project? Why? Is one of these techniques better than the others and if so, why? (5 Marks)