Case Study : Virus Free (VF)[1]

Project Assumptions:

- 2 researchers (one in Chemistry and the other in Pharmacy) identify a business opportunity
- They plan to do research themselves and create a new product but in the short run they want to produce an anti-virus already under patent and sell it
- There is a new generation of anti-virus with fewer side effects
- The anti-virus market is growing fast
- They consult specific legislation and they will start production next year
- They hire a consultant to produce an investment project and to evaluate the financial viability of the economic project.
- Life cycle of the product
    - Each medicine has its own life cycle
    - Has a short development period
    - The full cycle is protected by patents for 7 years (+ 7 years as generic brand)
    - After generics brand the sales of the original medicine will decrease
- Laboratory equipment costs 200,000 euros, including installation and testing. To be paid year 0.
- Scientific software has an expected cost of 90,000 euros according the supplier's quote.
- Patent cost is 96,000 euros.
- Depreciation rates per year for the assets are:
    - Building 5%
    - Equipment 10%
    - Intangible assets 33%

[Note that the site (land) is not subject to depreciation (note if it were a quarry the land would depreciate in value)]

[1] Source: Soares et al. (2012). Adapted.

- Need for working capital
  - Credit conditions obtained from suppliers: payment deadline is one month (this is the conditions in the sector)
  - Credit conditions for clients: on average 3 months of sales
  - Stock period for raw materials is 2 months of the cost of consumed raw materials
  - Stock period for finished goods is 15 days of sales (the time they stay in the warehouse, after being produced and before being sold).
- Credit outstanding debts 10% of sales during the period.
- The project-firm borrows money from the bank . It takes out a loan which is 70% of the fixed capital (excluding the site-land) and the interest rate is 5%. The capital payment will be done in the 2 last years of the project (the last 80% and the year before the last 20%). The payment will be at the end of each year.
- Tax rate on gains (IRC) is 25%
- During year 0 the unit will not produce
- Cost of creation of the firm 1,000 euros.
- The site (land) where the firm and office will be installed costs   100,000 euros
- The builder provides a quote for the building of   200,000 euros. The deadline for construction is 6 months to be paid upon completion.

- After strategic analysis, the forecasts of the sales are for years 1, 2, 3 and 4: 300,000; 600,000; 700,000; 700,000.
- Consumed raw materials costs will be 40% of production.
- Labor costs will be 60,000 in year 1 and 150,000 in years 2, 3, and 4.
- Purchase of utilities will be 10% of sales.