

Project Appraisal & Financing

Case 1: Private Sector Project

About the Company

Apex Bearings Company Limited (ABCL) is a Limited Liability Company, with its registered office situated at Gurgaon, Haryana. The company has its manufacturing facilities located at the Manesar, Sriperumbudur and Chakan. The company manufactures certain engineering components and mechanical items that are used in the automobile and two wheelers industry.

Company Background

ABCL is promoted by Mr. M. K. Sinha. The father of Mr. Sinha, Mr. S.K. Sinha was a wholesale trader of chemicals and pharmaceuticals. The shop-cum-warehouse of Omkar Pharma was located at Chadni Chawk (Delhi). Mr. S.K. Sinha had been running the business in the form of a proprietorship concern for almost 20 years. The performance of the trading business was satisfactory.

Mr. M. K. Sinha grew up in Delhi. He completed his B.Tech. (Mechanical Engineering) from IIT, Delhi. After completing his B.Tech., he joined Hindustan Motors as a graduate engineer trainee. He worked in Hindustan Motors for 5 years - during this period he earned two promotions. He had worked in the areas of production and maintenance.

Subsequently, Mr. Sinha quitted his job and went to USA for pursuing higher studies in Automobile Engineering. After completing his MS and Ph. D., he joined the R &D division of General Motor's plant in Detroit and had worked there for 7 years. When he was 40 years, in 1993, his father expired. Mr. Sinha had to come back to India to look after his mother and his father's business. He converted his father's trading firm into private limited company and renamed it as Apex Pharma Pvt. Limited. After about 3-4 years he stopped the trading activities and started a plant at Rewari that manufactured chemicals and pharmaceutical products (bulk drugs). There was a captive market for these products. His business in the chemicals and pharmaceuticals is running well. Today, Apex Pharma Pvt. Limited has 2 large plants – at Rewari and Jodhpur.

However, Mr. Sinha's penchant for starting something related to automobile industries had always prompted him to explore new opportunities in that field. His desire increased significantly since 1995-96, as many global automobile companies had started to operate in India. This was mostly because of low cost of production and foreseeable growth of the Indian economy after implementation of the economic reforms in 1991. These global companies were also looking for local vendors for supplying different parts. Mr. Sinha had started talking to these companies and some of these companies had sent out positive clues. After two to three rounds of discussions, in the month of October 1999, Mr. Sinha had signed an MOU with Honda for supplying of three critical components. Against this backdrop, Mr. Sinha floated the company ABCL.

The first factory of ABCL was established at Manesar. The project cost was Rs 300 million. It was set up in Manesar – on a land taken on 99-year lease from the Government of Haryana. The land was allotted to ABCL on the recommendation of Honda. ABCL has to pay a nominal amount of Rs 1,00,000/- per year for the entire tenure of the lease. In 1999, the company had taken a 5-year term loan from Union Bank amounting to Rs 200 million to set up the factory. It has paid off the loan in due course of time. Seeing the response, Honda had entered into an exclusive tie up arrangement with ABCL for supplying the three components in 2004. In the

same year, Honda had requested ABCL to set up another plant near Chennai in 2005. The company had successfully completed setting up and operating both the plants. By 2006, ABCL had started supplying components to other the OEMs.

ABCL has grown over the years. The company registered an average annualized growth in sales of more than 30% p.a. during the years 2015 – 20. Due to disturbances induced by COVID-19, the 5-year annualized growth of sales has fallen to around 15% p.a. At present, ABCL has a buy back arrangement with different OEMs where it sells about 80% of its production. The replacement market is volatile.

The company has a total number of 500 employees out of which 100 are in the managerial cadre. The company has also engaged contractors for supplying labour (ranging from 500 to 2000, depending on the orderbook and workload). The company wants to have a flexible work force to avoid any labour problem.

The Project

ABCL wants to set up a new factory at Sanand, Gujarat. In this plant, in the first phase of operations, lasting for about 5-6 yaers ABCL plans to produce forged body parts, gearbox and shock absorbers. The company feels that the same facility can be used for producing some other engineering components which can be of use to mining and constructions industries. Manufacturing of these items will be taken up in the second phase of operation.

The motivation of ABCL proposed facility is that this move will help the company to diversify risks – particularly concentration risks, with its entire current exposure remaining confined to automobile industry.

Details of the Project

1. Land required for the proposed plant is about 10 acres. The company has already identified a land near to ITI Sanand. At present the market price of the land in that area is about Rs 50 lacs per acre. The registration cost and stamp duty are approximately 10% of the total sale value.
2. ABCL plans to construct a building with a built-up area of 50,000 square feet. Estimates of industrial construction is expected shows that the cost of construction is Rs. 950 - 1000 per square feet.
3. ABCL would have to purchase plant and machinery for this proposed plant at Sanand. The project team at ABCL has made detailed sourcing plan. The plan suggests that plant and machinery will be purchased from suppliers in India as well as suppliers located abroad. Imports may be from Germany, The Netherlands, Sweden, etc. ABCL will finalize the suppliers after detailed negotiations. The project team has estimated the cost of machines, which are shown in the following table.

The installation agencies are different for different machines. They are also different from the suppliers of the machine(s). The suppliers of most of the machines do not carry

out installation. In case of many of the planned machines, the installation agencies also take up the Maintenance Contracts (AMC) on behalf of the suppliers.

	Cost of Machine (Rs. Lakhs)	Installation Cost (Rs. Lakhs)
Domestic Machine	800	100
Imported Machine	500	50

4. ABCL is planning for maximum automation at Sanand plant. This will require investments in software (PLC, CNC, SCADA, etc.) and the related hardware. The project team has prepared an IT plan which shows the following:

Item	Rs. Lakhs
Hardware	100
Software	50

5. ABCL will also have to purchase furniture and fixtures. The budgeted amount for furniture and fixtures is Rs 200 lacs.
6. The project plan of ABCL also shows a contingency expenditure of Rs 250.00 lakhs. Bank charges for LC for capital items, if required, are considered under this head, along with other standard items for calculations of contingencies. The contingency expenditure will be incurred in 6 months. This would be capitalized and, then amortized over a period of 10 years at a uniform rate. Interest During Construction (IDC) will be calculated based on 6 months.
7. The project implementation time is estimated as 12 months from the date of purchase of land and completion of all the required formalities.
8. Interest during construction period will be capitalized. As per the banking norms (suggested by most banks), IDC would be calculated by using the average project implementation period of 6 months and IDC would be allocated proportionately to the outstanding value of fixed asset.
9. ABCL wants to avail a Term Loan from Bank to finance this planned project at Sanand. It has already engaged in preliminary negotiations with 4 banks – Axis Bank, Bank of Baroda, IndusInd Bank and Canara Bank. The negotiations have revealed:
- Margin of the loan will be approximately: 33%
 - Anticipated Tenor of the Loan will be about 5 years
 - Moratorium Period for the Principal Amount would be 1 year
 - The entire IDC would have to be funded by equity only
 - Interest will be applied at monthly rest and to be serviced on application
 - Expected interest rate on term loan is 12% p.a.
 - Expected interest rate on working capital loans is 11% p.a.
10. The project plan of ABCL shows the following holding levels for current assets for the proposed plant at Sanand, after it starts operating.

Item	Measure	Year				
		1	2	3	4	5
RM	% Sales	14.40%	16.20%	16.05%	17.31%	16.93%
WIP	% Sales	3.69%	2.27%	2.54%	2.95%	3.14%
FG	% Sales	12.64%	13.53%	12.78%	14.61%	15.64%
Receivables	% Sales	16.67%	21.39%	15.85%	18.26%	19.56%
Creditors	% RM Purchased	8.33%	4.17%	4.17%	3.33%	2.92%
Other Current Asset as a % of Inventory and Receivable outstanding	% Inventory and Receivables combined	3.32%	3.74%	2.83%	2.66%	2.76%

11. ABCL plans to avail working capital finance for Sanand Plant upon starting its commercial production. It may avail working capital finance from the Bank extending the Term Loan or from any other second bank.

12. The project team of ABCL has made the following assumptions about the anticipated capacity and capacity utilization of the proposed plant at Sanand:

Installed Capacity	0.1 million units per annum
Capacity Utilization	Year 1: 50%; Year 2: 75%; Year 3: 80%; Year 4: 85%; Year 5: 85%

13. Raw Material Requirement: Per unit production will require raw material in the following pattern:

- Per unit of product would require 0.500 MT steel for first three years and then the steel requirement would be increased to 0.550 MT.
- The price of steel is assumed as below:

	Year				
	1	2	3	4	5
Steel Price (Rs. / MT)	28000	28000	30000	30000	32000

14. Power Requirement: Per unit production of the product would be requiring 10 units (industrial) of electricity. As the machines get older, the same would increase to 12 units of electricity from 3rd year onward. The price per unit of Electricity is assumed as follows:

	Year				
	1	2	3	4	5
Electricity Price in Rs. Per Unit (industrial)	3.30	3.30	4	4.10	4.10

15. The salary and wages are assumed as mentioned:

	Year				
	1	2	3	4	5
Salary and Wages (Rs. Lakhs)	55	65	75	80	100

16. Other manufacturing expenses are assumed as follows :

	Year				
	1	2	3	4	5
Other Manufacturing Expenses (Rs. Lakhs)	12	15	15	18	20

17. Selling and Distribution expenses have been assumed as follows :

	Year				
	1	2	3	4	5
As % of sales value for the month	10%	8%	7%	6%	5%

18. Depreciation for the assets to be procured for the project will be as per the following schedule:

Asset Name	% on WDV
Building (Factory)	10%
Plant and Machinery	15.33%
Computers	40%
Furniture and Fixture	18.1%

19. Sales: The company has assumed the following sales for the next 5 Years :

	Year				
	1	2	3	4	5
Sales (no of units)	45000	77000	79000	84500	84500
Sales Price Per unit (in Rs.)	18000	18000	19500	21000	22500

20. Economic life of the assets procured in the first phase is about 30 years

Our Tasks

- Finding out the project cost
- Finding out the means of finance
- Finding out the sources of means of finance
- Finding out the BEP

- Finding out the DSCR project as separate entity and company as a whole
- Finding out the NPV and IRR of the Project (under certain assumptions)
- Identification of Pre Construction Risk
- Identification of Post Construction Risk

.....To be continued.