March 2013

Bachelor of Business Administration (BBA) Examination

V Semester

Project Management

Time 3 Hours] [Max. Marks 80

Note : Attempt any four questions from Section A. Section B is compulsory. Each question of Section A carries 15 marks and of Section B a case for 20 marks.

Section A

Q.1. Define Project and explain various phases of Project Life Cycle.

Q.2. Explain various types of risks to which a project is exposed to. Discuss different techniques for project appraisal.

Q.3. Write short notes on any two of the following :
(a) Market Potential Analysis
(b) Killer's Model.
(c) Social Cost Benefit Analysis.
(d) Reasons for Failure.

Q.4. With the help of example explain PERT and CPM techniques.

Q.5. Discuss the salient features of Project Software.

Q.6. Explain a project managers skills and function required for successful implementation of the project.

Q.7. Write short notes on the following :
(a) Project Monitoring.
(b) Earned Value Analysis.

Section B

A CASE STUDY : DETERGENTS INDIA LIMITED

In 1995-96, Detergents India Limited (DIL) was evaluating the feasibility of putting up a 1,500 mt detergent cake plant and a 500 mt detergent powder plant, and an indent from Hindustan Lever Limited (HLL) to manufacture its product called 501 Bar. DIL, a company belonging to the Shaw Wallace Group, was set up in 1974 and commenced operations in 1977. The company manufactures synthetic detergents (cake and powder). The company has a principal-to-principal agreement with Shaw Wallace and HLL to cater to their needs. DIL has a capacity of 3,800 metric tonnes of which 1,400 mt is in Kodur (Andhra Pradesh), 750 mt

in Coimbatore (Tamil Nadu) and 550 mt in Gulbarga (Karnataka). The company also has processing agreements for 700 tonnes with Jayanthi Detergents Limited and the Calcutta Chemicals Company. Apart from these, DEL uses third party operations as and when required.

Detergents India acts as a third party manufacturer to HLL in addition to catering to the parent (to manufacture Chek and Regal). Just as DIL acts as a TPM to HLL, other companies like Venkateshwara Detergents and Naga Oil Mills have agreements with DIL. Third party operations are of two types :

- Processing arrangements
- Principal to principal arrangements

In a processing arrangement, the raw material and packing material is provided to the third parties and they are paid a processing charge for processing the raw material into the finished product. DIL has a processing arrangement with HLL for its product, 501 Bar.

In a principal to principal arrangement, the third party would be completely responsible for all operations from procurement of raw materials to conversion into finished product. DIL has this agreement with Shaw Wallace for all their branded products and with Hindustan Lever for its product Wheel.

The market for detergents is dominated by HLL and Procter & Gamble with four other companies in the organized sector Godrej Soaps, Shaw Wallace, Colgate Palmolive, and Nirma. In addition there are numerous players in the unorganized sector. In 1995 the detergent market was estimated at Ks. 6,500 crore. Exhibit 10.1 presents a snapshot of the detergents market The soaps and detergents industry does not face shortages of raw material as major ingredients like soda ash, vegetable oils, linear alkyl benzene and sodium triphosphate are available. The capacity and production of detergents for the period 1990-94 is given here :

in lac tonnes

	Capacity	*Production*
1990-91	4.4	2.47
1991-92	4.4	4.54
1992-93	6.61	4.20
1993-94	6.05	4.06

HINDUSTAN LEVER LIMITED

Hindustan Lever, belonging to the Unilever Group, is one of the best known and best-managed companies in India. HLL enjoys leadership

position in soaps, detergents, cosmetics, ice cream, and packed tea. HLL had more than 100 brands; lately the company has pruned its brand portfolio to 40. HLL has a strong distribution network which includes 3 million retail outlets and 7,500 distributors.

Exhibit 10.1 Snapshot of the detergent industry in 1995

Market size	Rs. 6,500 crore
Major competitors	HLL, P&G
Other players in the organized sector	Godrej, Shaw Wallace, Colgate, and Nirma
Market structure	Organized sector : 70 percent Unorganized sector : 30 percent
Market growth	Soaps : 10-15 percent Detergents : 7-8 percent
Market share	Detergent cake : 55 percent Powder: 45 percent
Segment growth	Detergent cake : 13-14 percent Powder: 5-6 percent

	Organized sector	Small scale sector
Laundry soaps	75,000 tonnes	7.5 lac tonnes
Toilet soaps,	95 percent	5 percent
Synthetic detergents	45 percent	55 percent

Given here is the break-up of the HLL portfolio and the contribution of each business :

Soaps and detergents	44.4 percent
Personal products	22.0 percent
Beverages	10.9 percent
Foods	6.4 percent
Icecreams	1.6 percent
Exports	11.2 percent
Other (chemicals, agriculture, etc.)	3.4 percent

HLL'S PERSPECTIVE : MAKE OK BUY ?

The make or buy analysis essentially involves comparing the cost of manufacturing (making) in-house and the cost of buying. To illustrate, assume that a company requires 10,000 units of a product for the next 20 years, and the demand is expected to be constant. A supplier is currently making it for Rs. 20, A brief calculation suggests that it can be made in-house for Rs. 15.

DIL'S PERSPECTIVE

In 1995 the detergents market was growing at 6.7 percent. HLL was

outsourcing 2,300 MT from DIL. HLL was expected to increase orders at a rate reflecting the overall growth in sales/market or at least maintain it at 2,300 MT. The processing charge for 501 was Rs. 1,400 per MT and DIL in turn would pay Rs. 800 per MT to its third party manufacturers like Jayanthi Detergents and Calcutta Chemicals. The decision to take tip the HLL indent essentially involves offloading the Shaw Wallace indent to a 3P manufacturer and allocating the in-house capacity to HLL. In addition, DIL was evaluating the possibility of putting up a 1,500 MT detergent cake plant and a 500 MT powder plant at Ambattur (Tamil Nadu) to cater to Shaw Wallace.

The return on investment for the plant. It works out to 31 percent. As mentioned in an earlier chapter, ROI is a single period measure. It does not allow the decision-maker to draw meaningful inferences. Assuming that the revenue and expenses grow at some rate (or estimate explicitly at forecasted prices), if we calculate working capital as a percentage of revenues (or assume that it remains constant) we can calculate the NPV of the plant by finding the PV of free cash flows and subtracting the initial investment.

The infrastructure required for the manufacture of 1,500 MT and 2,000 MT are the same, which suggests that DIL would have 500 MT of spare capacity. This spare capacity could be provided to HLL. HLL pays DIL a processing charge of Rs. 1,125 per MT. So the NPV calculated earlier would be understand, the NPV of this investment should be added to if. The return on investment goes up to 51 percent.

This numerical is adapted from Bierman, Harold and Seymour Smidt (1993). *The Capital Budgeting Decision*, Macmillan Publishing Company, New York.

Questions :

1. How should HLL decide whether to produce in-house or buy from DIL?
2. Should DIL put up 1500 MT or 2000 MT plant ?.

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