

## Paper-17: Strategic Performance Management

Time Allowed: 3 Hours

Full Marks: 100

Whenever necessary, suitable assumptions should be made and indicate in answer by the candidates.

Working Notes should be form part of your answer

### Section –A

[Question 1 and 2 are compulsory and answer any 3 from the rest]

#### 1. Xerox Benchmarking

Possibly the best-known pioneer of benchmarking in Europe is Rank Xerox, the document and imaging company, which created the original market for copiers. The virtual monopoly the company had in its sector almost became its undoing. However, spurred by the threat from the emerging Japanese copier companies, an in-depth study within the company recognized that fundamental changes were needed. To understand how it should change, the company decided to evaluate itself externally – a process which became known as competitive benchmarking. The results of this study shocked the company. Its Japanese rivals were selling machines for about what it cost Xerox to make them. Nor could this be explained by differences in quality. The study found that, when compared with its Japanese rivals, the company had nine times more suppliers, was rejecting 10 times as many machines on the production line and taking twice as long to get products to market. Benchmarking also showed that productivity would need to grow 18 per cent per year over five years if it was to catch up with its rivals.

Rank Xerox sees benchmarking as helping it achieve two objectives. At a strategic level it helps set standards of performance, while at an operational level it helps the company understand the best practices and operations methods which can help it achieve its performance objectives.

Its experience of using this approach has led Xerox to a number of conclusions:

- The first phase, planning, is crucial to the success of the whole process. A good plan will identify a realistic objective for the benchmarking study, which is achievable and clearly aligned with business priorities.
- A prerequisite for benchmarking success is to understand thoroughly your own processes. Without this it is difficult to compare your processes against those of other companies.
- Look at what is already available. A lot of information is already in the public domain. Published accounts, journals, conferences and professional associations can all provide information which is useful for benchmarking purposes.
- Be sensitive in asking for information from other companies. The golden rule is: 'Don't ask any questions that we would not like to be asked ourselves.'

#### Required:

- (a) Discuss about the Competitive Benchmarking.
- (b) Mentioning the steps in Benchmarking.
- (c) What kind of information did Rank Xerox discover in its Benchmarking study?
- (d) What did Rank Xerox get in its Benchmarking application? **[5+5+3+2]**

### 2. Walmart: Keys To Successful Supply Chain Management

Over the past ten years, Walmart has become the world's largest and arguably most powerful retailer with the highest sales per square foot, inventory turnover, and operating profit of any discount retailer. Walmart owes its transition from regional retailer to global powerhouse largely to changes in and effective management of its supply chain.

Walmart began with the goal to provide customers with the goods they wanted when and where they wanted them. Walmart then focused on developing cost structures that allowed it to offer low everyday pricing. The key to achieving this goal was to make the way the company replenishes inventory the centerpiece of its strategy, which relied on a logistics technique known as cross docking. Using cross docking, products are routed from suppliers to Walmart's warehouses, where they are then shipped to stores without sitting for long periods of time in inventory. This strategy reduced Walmart's costs significantly and they passed those savings on to their customers with highly competitive pricing. Walmart then concentrated on developing a more highly structured and advanced supply chain management strategy to exploit and enhance this competitive advantage.

The main elements of a supply chain include purchasing, operations, distribution, and integration. The supply chain begins with purchasing. Purchasing managers or buyers are typically responsible for determining which products their company will sell, sourcing product suppliers and vendors, and procuring products from vendors at prices and terms that meets profitability goals.

Supply chain operations focus on demand planning, forecasting, and inventory management. Forecasts estimate customer demand for a particular product during a specific period of time based on historical data, external drivers such as upcoming sales and promotions, and any changes in trends or competition. Using demand planning to develop accurate forecasts is critical to effective inventory management. Forecasts are compared to inventory levels to ensure that distribution centers have enough, but not too much, inventory to supply stores with a sufficient amount of product to meet demand. This allows companies to reduce inventory carrying costs while still meeting customer needs.

Moving the product from warehouses or manufacturing plants to stores and ultimately to customers is the distribution function of the supply chain.

Supply chain integration refers to the practice of developing a collaborative workflow among all departments and components involved in the supply chain to maximize efficiencies and build a lean supply chain.

Walmart has been able to assume market leadership position primarily due to its efficient integration of suppliers, manufacturing, warehousing, and distribution to stores. Its supply chain strategy has four key components: vendor partnerships, cross docking and distribution management, technology, and integration.

Walmart's supply chain begins with strategic sourcing to find products at the best price from suppliers who are in a position to ensure they can meet demand. Walmart establishes strategic partnerships with most of their vendors, offering them the potential for long-term and high volume purchases in exchange for the lowest possible prices.

Suppliers then ship product to Walmart's distribution centers where the product is cross docked and then delivered to Walmart stores. Cross docking, distribution management, and transportation management keep inventory and transportation costs down, reducing transportation time and eliminating inefficiencies.

Technology plays a key role in Walmart's supply chain, serving as the foundation of their supply chain. Walmart has the largest information technology infrastructure of any private company in the world. Its state-of-the-art technology and network design allow Walmart to accurately forecast demand, track and predict inventory levels, create highly efficient transportation routes, and manage customer relationships and service response logistics.

## PTP\_Final\_Syllabus 2012\_Jun2014\_Set 2

**Required:**

- (a) Mention the objectives of supply chain Management.
- (b) Explain the importance of Supply Chain Management.
- (c) What are the benefits getting after the adoption of Supply Chain Management by Wal Mart.
- (d) How did Walmart's manage the Supply Chain Management? **[3+3+4+5]**

**3.(a)** A business man has two independent investments A and B available to him; but he lacks the capital to undertake both of them simultaneously. He can choose to take a first and then stop, or if A is successful then take B, or vice versa. The probability of success on A is 0.7 while for B it is 0.4. Both the investments require an initial capital outlay of ₹20,000 and both return nothing if the venture is unsuccessful. Successful completion of A will return ₹30,000 (overcost). And successful completion of B will return ₹50,000 (overcost). Draw the decision tree and determine the best strategy.

- (b) Mention the benefits of adopting a Balanced Scorecard approach to performance Management. **[(3+4)+3]**

**4.(a)** Wipro is examining the profitability and pricing policies of its Software Division. The Software Division develops Software Packages for Engineers. It has collected data on three of its more recent packages - (a) ECE Package for Electronics and Communication Engineers, (b) CE Package for Computer Engineers, and (c) IE Package for Industrial Engineers.

Summary details on each package over their two year cradle to grave product lives are -

Package	Selling Price	Number of units sold	
		Year 1	Year 2
ECE	₹250	2,000	8,000
CE	₹300	2,000	3,000
IE	₹200	5,000	3,000

Assume that no inventory remains on hand at the end of year 2. Wipro is deciding which product lines to emphasize in its software division. In the past two years, the profitability of this division has been mediocre.

Wipro is particularly concerned with the increase in R & D costs in several of its divisions. An analyst at the Software Division pointed out that for one of its most recent packages (IE) major efforts had been made to reduce R&D costs.

Last week, Amit, the Software Division Manager, decides to use Life Cycle Costing in his own division. He collects the following Life Cycle Revenue and Cost information for the packages (in ₹)-

Particulars	Package ECE		Package CE		Package IE	
	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2
Revenues	5,00,000	20,00,000	6,00,000	9,00,000	10,00,000	6,00,000
Costs						
R&D	7,00,000	-	4,50,000	-	2,40,000	-
Design of Product	1,15,000	85,000	1,05,000	15,000	76,000	20,000
Manufacturing	25,000	2,75,000	1,10,000	1,00,000	1,65,000	43,000
Marketing	1,60,000	3,40,000	1,50,000	1,20,000	2,08,000	2,40,000
Distribution	15,000	60,000	24,000	36,000	60,000	36,000
Customer Service	50,000	3,25,000	45,000	1,05,000	2,20,000	3,88,000

## PTP\_Final\_Syllabus 2012\_Jun2014\_Set 2

Present a Product Life Cycle Income Statement for each Software Package. Which package is most profitable and which is the least profitable? How do the three packages differ in their cost structure (the percentage of total costs in each category)?

- (b) "A company can gain competitive advantage not just by matching or surpassing its competitors, but discovering what the customers want and then profitably satisfying, and even exceeding, customer expectations" – Discuss. **[4+6]**

5. (a) The two manufacturing divisions of Das Company are organized on profit centre basis. Division X is the only source of a component required by Division Y for their product "P". Each unit of "P" requires one unit of the said component. As the demand for the product is not steady, order for increased quantities can be obtained only by manipulating prices. The manager of Division Y has given the following forecast -

Sales Per Day (units)	5,000	10,000	15,000	20,000	25,000	30,000
Average price per unit of P (₹)	393.75	298.50	247.50	208.50	180.00	150.75

The manufacturing cost (excluding the cost of the component from Division X) of P in Division Y is ₹14,06,250 on first 5,000 units and ₹56.25 per unit in excess of 5,000 units.

Division X incurs a total cost of ₹5,62,000 per day for an output upto 5,000 components and the total costs will increase by ₹3,38,000 per day for every additional 5,000 components manufactured. The manager of Division X has set the Transfer Price for the component at ₹90 per unit to optimize the performance of his division.

Required:

- Prepare a schedule showing the profitability at each level of output, for Divisions X and Y separately.
- Find out the profitability of the Company as a whole at the output level where –
  - Division X's net profit is maximum ;
  - Division Y's net profit is maximum.
- Find out at what level of output, the Company will earn maximum profit.

- (b) Discuss about the Price Discrimination under the demand oriented pricing. **[(3+1+2)+4]**

6. (a) K Ltd. sells output in a perfectly competitive market. The average variable cost function K Ltd. is  $AVC = 300 - 40Q + 2Q^2$ . K Ltd has an obligation to pay ₹ 500 irrespective of the output produced. What is the price below which K Ltd. has to shut down its operation in the short run?

- (b) The total cost function for a monopolist is given by

$$TC = 900 + 40 Q^2$$

The demand function for the good produced by the monopolist is given by

$$2Q = 48 - 0.08 P$$

What will be the profit maximizing price?

- (c) Discuss the objectives of Process Analysis. **[3+4+3]**

### Section –B [Answer any one]

7. (a) Discuss the role of government in examining, promoting, understanding and application of e-commerce technologies throughout Indian Industries and communities.  
(b) Explain the Data Quality Dimensions.  
(c) "Artificial neuron is a basic building block of every artificial neural network. Its design and functionalities are derived from observation of a biological neuron" – Explain the Statement. **[6+8+6]**

8. (a) Discuss about the Stochastic Frontier Analysis (SFA) .  
(b) Define the following term in the context of Supply Chain Management  
(i) Agreement, (ii) Forecast Error, (iii) Inventory Management Systems, (iv) Performance Measurement.  
(c) Mention the phases of DMADV. **[3+(4x3)+5]**

**Section – C**  
**[Answer any one]**

9. (a) Describe the Stagnation Risk In the context of Corporate Risk.  
(b) State about the Risk Pooling  
(c) Explain about the Systematic Risk and Unsystematic Risk.  
(d) Explain about the Risk affecting in Capital Influx and Market Volatility. **[3+5+6+6]**
10. (a) Discuss the Linear Probability Model.  
(b) "The key to preventing corporate failure is to spot the warning signs early, and take corrective action quickly." – Explain the above statement.  
(c) Mention the objectives of GACAP. **[ 5+10+5]**