



CII Institute of Logistics

PGDSCM & Certificate Programs

Semester-end Examination – December 2008

SUPPLY CHAIN METRICS

Time : Three Hours

Marks : 100

Part A

Answer all questions (20 x 1 = 20 Marks)

1. A supply Chain Metrics performs two main roles of Physical Distribution and Market mediation
TRUE/ FALSE
2. Among the three main flows in supply chain, which flows in one direction?
 - a. Finance
 - b. Information
 - c. Material
 - d. a and c only.
3. Supply Chain Design has pursued which as core competitiveness:
 - a. Product
 - b. Price
 - c. Time
 - d. All of the above
4. Agile Supply Chain improves:
 - a. response to rapid and unpredictable market
 - b. Product life cycles
 - c. Mass Customization
 - d. All of the above
5. In a Traditional Supply Chain
 - a. Focus on lower cost
 - b. Cycle time is much lower
 - c. Is very efficient and improves customer satisfaction
 - d. Agile
6. Potential Gaps in SCOR model are:
 - a. There are no gaps
 - b. Marketing
 - c. Manufacture
 - d. Finance
7. Balance Score card is
 - a. used to write stock of items at stores
 - b. Other name for Bin Card
 - c. is a management system that enables organizations to clarify their visions and strategy and translate them into action
 - d. used to maintain pending supplier payments
8. Which is not an application of EVA?
 - a. Measurement
 - b. Management
 - c. Money
 - d. Motivation
9. Which of the following limit EVA:
 - a. Can be manipulated by Managers
 - b. Diminished Innovation
 - c. Does not control size differences across plants
 - d. All of the above
10. ABC and Balance Score Card systems can provide inputs to a firm's distribution channel strategy.
TRUE/ FALSE
11. Which of the following Abbreviations is not correct?
 - a. AHP- Analytical Hierarchy Process
 - b. EVA- Economic Value Added
 - c. EVA- Economic Value Addition
 - d. SCOR- Supply Chain Operations Reference
12. A cost is a measure of resources given to achieve a particular purpose.
TRUE/ FALSE
13. Activity Cost Drivers are
 - a. Customers and Activities
 - b. Resources and Costs
 - c. All of the above
 - d. Only "a"
14. Major elements of Customer Service are:
 - a. Order Delivery Cycle Time
 - b. Reliability of Inventory
 - c. Consistency and Frequency in Delivery
 - d. All of the above.
15. For achieving the supply chain excellence we need not have visibility across the chain.
TRUE/FALSE

16. All of these are Fundamental dimensions of Customer Service EXCEPT :
- Stock Out Frequency
 - Fill Rate
 - Completed order shipped
 - Customer Audits
17. SCOR model is
- Process Driven
 - Functional driven
 - Systems Driven
 - Time driven
18. Which of the following is NOT a predetermined standard for controlling the service performance?
- Order Cycle Time
 - Payment Terms
 - Frequency of Delivery
 - Claims Procedure
19. Logistics cost will decrease when:
- Order Size Increases
 - Material is sent to long distances
 - Fast track courier deliveries
 - when Packed in small sizes
20. While measuring supply chain service performance the service components, service features and Instrument design are considered. TRUE/FALSE

Part B

Answer any FOUR

Marks: 4 x 10 =40

- How can Supply Chain Metrics improve competitiveness?
- Write notes on SCOR Model
- Explain how EVA helps an organization.
- ABC (Activity Based Costing) systems have generated extraordinary systems in Corporate recently. Why?
- Supply Chain Analytics minimize the risk of supply chain disruptions. How?
- Write notes on Supply Chain of Dubbawalas.

Part C

CASE STUDY

Marks: 40

Veston Electronics India Ltd (VEIL)

John Maggs, supply management manager of Veston, was studying the replacement of the company's central office stores and Purchase by an outside service. Veston is located in Nagpur. Veston was in the midst of a corporate overhead reduction program. As part of this program, John had been assigned the task of investigating opportunities for outsourcing selected in-house services. He was expected to report on the central stores and Purchase outsourcing issue at the next program meeting in three days.

VEIL – need to Revamp existing practices

Veston was a \$3 billion firm with sales in consumer products and government systems and services. It enjoyed high overall growth until fierce competition flattened sales and decreased profits sharply two years ago. Since then, corporate cost and overhead reduction efforts had become widespread. The supply management department sought savings by increasing emphasis in existing areas as well as by participating in corporate wide cost reduction team programs. The central stores operation came under review when two outside firms approached John's department with initial proposals to replace Veston stores and Purchase operation with their own inventory and sourcing service.

Stores Layout

Central stores at Veston was created in the middle 1980s when a corporate wide study revealed that large savings would result from bulk buying and distribution of stationery and all other supplies. A central group was formed to serve Veston fifteen area sites. While it represented an increase in manpower, facility, and delivery expenses, large savings resulted through reduction in individual office inventories, mass buying, and decreased purchase order expenses.

At the present time, central stores served fifteen area sites from a warehouse in Mumbai. Annual throughput was about \$1,200,000 and the average inventory was valued at \$180,000. Over 500 items were stocked. A catalogue of items was updated and distributed every six months. Four people worked in the operation: two as pickers, one order entry clerk, and one to wrap, label, and load trucks. Activity was slightly seasonal, with peaks occurring in December when the demand for calendars was high, and at the end of quarter budget periods for other items.

The cost of the personnel and space was about \$190,000 per year. Deliveries were made on a daily basis with a corporate truck that handled corporate mail and other interplant movements.

These deliveries were made to the building docks or reception areas. Corporate stores were part of Corporate Administrative Services, which also included food service contracting, security services, and personnel.

Service complaints in the form of lengthened order times (e.g., specific letterhead stationery took three to four weeks, while other items required ten to fourteen days) were common. It also took a long time for stores to implement the acquisition of new items. Post-Its, for example, were not added until five months after they were on the market. Split deliveries also were common. Up until this time it was generally believed by John and his boss that the economies of this system were still better than any other alternatives, but this conclusion had never been verified.

Outsourcing of Services

The idea of investigating outside sourcing services arose in June when two firms approached John's shop with general proposals. These proposals coincided with a top-management mandate in May for all departments to seek and implement reportable savings by year end. John heard through outside contacts that other firms in the area were reducing both expenditures and overhead costs by these means.

By June, John had in hand initial proposals from Total Supply Services, and Muller Management Ltd ,based in Mumbai and Ahmedabad and other three vendors. The initial information provided by the suppliers included:

1. Sample catalogues
2. Price lists
3. Ranges of costs for certain delivery/volume configurations
4. Ware House and Stores Management Service details

A line item analysis by John's assistant showed that about 90 percent of the 500 currently stocked items would be available at less cost. On the average, the promised savings would be about 6 percent. Furthermore, the suppliers' proposed catalogues included about 600 items each. All five firms sought three-year contracts with options for renewal. The firms would provide their own specially printed catalogues in unique binders. Order cycle times were promised to be no longer than ten working days, including Raw Materials and Other Key spares.

Deliveries would be made directly to each site. The use of special preprinted order forms with the most common items was suggested in all proposals. John, his manager, and others in the review group had some concerns about the outside service idea. These ranged from the uncertainty and risk of the idea to the reduced control over the process. Questions arose over the profit to be made by the outside firms. Greater mass buying power gave these firms pricing advantages. John did notice, however, that a key Raw Material an important item to Veston, were priced in the \$39-\$45 range in the proposed catalogues. Veston currently enjoyed a better price of \$23 per unit. All the proposed contracts would lock in Veston for three years. The four people in central stores either would be redeployed to other jobs in the company or laid off. One of these four people was physically handicapped and worked in a wheelchair.

Proposal:

John's job was to develop an analysis of the concept behind the initial proposals and to recommend dropping the idea or requesting complete proposals. His feeling was that this time there will be internal political momentum to the idea of outsourcing and then eliminate the Veston' central stores. He wanted to make sure the review group would not compare the worst features of the current situation to the best of the proposed ones. His target was the next meeting of the corporate cost reduction team, three days hence.

1. Prepare an analysis and report on this issue for presentation at the next program meeting.
2. What Supply Chain Metrics will help for better savings?
