INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Materials Management 3 years/Lateral
Paper 17
ADVANCED SUPPLY CHAIN MANAGEMENT

Dec 2019

Date: 28.12.2019 **Max. Marks 100**
Time: 2.00 p.m. to 5.00 p.m. **Duration 3 hours**

Instructions
1. The question paper is in three parts
2. Part A is compulsory. Each sub question carries one mark. **Total marks-32**
3. In Part B answer any 3 questions out of 5. Each question carries 16 marks **Total marks-48**
4. Part C is a case study with sub questions and it is compulsory. **Total marks-20**

PART A   (32 x1 = 32 marks)
(Compulsory)

Q.1. Fill in the blanks. (Do not reproduce the statement)   8 marks
   i) A value chain is comprised of both _____ and support activities.
   ii) The total elapsed time to move a unit of work from the beginning to the end of a physical process is _____ time.
   iii) One of the key needs of any decision support system for network design is _____.
   iv) Centralizing inventory reduces both safety stock and _____ inventory in the system.
   v) Bullwhip effect can be significantly reduced by _____ demand information.
   vi) _____ shares company information and computing resources among employees.
   vii) Business to business relationships facilitated by internet is _____.
   viii) When a buyer commits to buy at a future date a contracted quantity at a contracted price is called _____ buying.

Q.2. State True or false (Do not reproduce the statement)   8 marks
   i) Every product that reaches an end user represents the cumulative effort of multiple organizations.
   ii) Pull processes are initiated and performed in anticipation of customer orders.
   iii) The primary unit of analysis for supply chain is performance cycle.
   iv) Selective inventory management techniques are used to value inventory.
   v) Forecast is always wrong.
   vi) All agreements are contracts.
   vii) Supply chain efficiency is the cost of making and delivering a product to the customer.
   viii) A contract of sale is completed by delivery of goods.

Q.3. Expand the following   8 marks
   i) EFT
   ii) SKU
   iii) LAN
   iv) ESI
   v) GPS
   vi) TCA
   vii) ATP
   viii) SQL

Q.4.Match A and B   8 marks

No.	A		B
1.	FSN analysis	A	Focus on core strength
2.	Cross docking	B	Reduce manufacturing lead time
3.	3PL	C	Rate of consumption
4.	Parallel processing	D	Inventory coordination point
5.	Grey box	E	Communication via computer system
6.	Craft production	F	Common database system
7.	EDI	G	Formal supplier integration
8.	ERP	H	Differentiated specialized goods

Q. 5. a) Define supply chain. Explain various flows in a supply chain.   **8 marks**
    b) Discuss the ways to reduce cycle time in a supply chain.   **8 marks**

Q.6. a) Explain the principles of supply chain information.   **8 marks**
    b) Discuss functional strategies that affect supply chain.   **8 marks**

Q.7. a) What are the goals of supply chain?   **8 marks**
    b) Explain sale of goods act.   **8 marks**

Q.8. Differentiate between   **(2 x8= 16 marks)**
    a) Pull and push based supply chain   b) Internal and external supply chain
    c) E commerce and E procurement   d) Product standardization and process standardization

Q.9. Write short notes any four (4 x 4 = 16 marks)
    a) Risk pooling
    b) Bullwhip effect
    c) RFID
    d) Supplier relationship Management
    e) Third party logistics

PART C   20 marks

Q.10 Case Study (compulsory)

Starbuck like many of the most successful worldwide brands, the coffee shop giant has been through its periods of supply chain pain. In fact, during 2007 and 2008, Starbucks leadership began to have serious doubts about the company's ability to supply its 16,700 outlets. As in most commercial sectors at that time, sales were falling. At the same time though, supply chain costs rose by more than $75 million.

When the supply chain executive team began investigating the rising costs and supply chain performance issues, they found that service was indeed falling short of expectations. Findings included the following problems

- Fewer than 50% of outlet deliveries were arriving on time
- A number of poor outsourcing decisions had led to excessive 3PL expenses
- The supply chain had, (like those of many global organisations) evolved, rather than grown by design, and had hence become unnecessarily complex

Starbucks' leadership had three main objectives in mind to achieve improved performance and supply chain cost reduction. These were to:
1. Reorganize the supply chain
2. Reduce cost to serve
3. Lay the groundwork for future capability in the supply chain

In order to meet these objectives, Starbucks divided all its supply chain functions into three key groups, known as "plan" "make" and "deliver". It also opened a new production facility, bringing the total number of U.S. plants to four.

Next, the company set about terminating partnerships with all but its most effective 3PLs. The remaining partners were then managed via a weekly scorecard system, which was aligned with renewed service level agreements.

By the time Starbucks' supply chain transformation program was completed, the company had made savings of more than $500 million over the course of 2009 and 2010, of which a large proportion came out of the supply chain, according to Peter Gibbons, then Executive Vice President of Global Supply Chain Operations.

Questions:

    a) What made Starbuck to reorganize its supply chain?
    b) How did Starbuck reorganize the supply chain?
    c) In your opinion what contributed to Starbucks supply chain profits.

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