

JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA

PGDM / PGDM (M) / PGDM (SM)

TRIMESTER (Batch 2016-18)

END TERM EXAMINATIONS

Course Name	Supply Chain Management	Course Code	OP-402
Max. Time	2 Hours	Max. Marks	40

INSTRUCTIONS:

Answers with Headings / Subheadings / Diagrams and Examples carry superior rating.

Question No. 1 – 5 carry 6 marks each. Question No. 6 on Case Analysis carry 10 Marks.

1. Describe Key Metrics Recommended by SCOR Model for measuring Supply Chain Performance. Explain their relevance in generating Supply Chain Surplus.
2. Wal-Mart supplies merchandise to their large Retail Stores through a Distribution Center centrally located in the Territory. Explain with network diagram the pattern of Supply & distribution between: Suppliers –Distribution Center –Retail Stores by following two Modes. Discuss advantage and disadvantage in each case:
A. Direct Delivery mode. B. Milk-Run mode
3. A Retail Chain has 6 Stores, supplied from 3 Distribution Centers. Supplies are made by trucks having capacity of 40,000 units. The cost of transportation is Rs 10000 per truck load plus delivery Charge of Rs 500 per delivery. Thus if the truck makes 2 deliveries in the route, it charges Rs 11000. Inventory Holding Cost is Rs 0.20 per unit per year. Annual Sales at each store are 120,000 units.
Recommend the most economical mode of transportation among the two options:
a) Using Direct Shipping Mode from DCs to each Retail Stores
b) Using Milk Run Mode from DCs to 3 Retail Stores
4. Scooters purchase tyres from two sources.
 - Mumbai based Supplier offers a price of Rs 1000 each and a discount of %, if the lot size is 500. Lead Time is 2 weeks.
 - Chennai based manufacturer quotes a price of Rs 900 each and discount of 10% if the lot size 1000. Lead time is 4 weeks
 - Inventory Holding Cost at Vista Scooter is 25 percent. Weekly Demand is 1000 Tyres with Standard Deviation in Lead Time Consumption is 100
 - Assume value of K to be 1.5 for 95% Service (Satisfaction) LevelHelp Purchase Manager at Vista to select one of the two suppliers.
5. Describe with examples how responsible Supply Chain Management can contribute to Environmental Sustainability by controlling:
a) Energy Consumption b) Green House Gas Emission c) Waste Generation

6. Analyse the Case on ZARA: Apparel Manufacturing and Retail.

Answer the following two questions:

- a. What advantage does Zara gain against the competition by having a very responsive Supply Chain?
- b. Why does Zara source products with uncertain demand from Local firms and those with predictable demands from Asian Manufacturers

ZARA: APPERAL MANUFACTURING AND RETAIL

Zara is a chain of fashion apparel stores owned by Inditex, Spain's largest apparel manufacturer & retailer. In 2004, Inditex reported sales of 13 billion Euros from more than 2200 retail outlets in 56 countries. The company opened a new store each day in 2004. In an industry in which customer demand is fickle, Zara has grown rapidly with a strategy to be highly responsive to changing trends with affordable prices.

Whereas design-to-store cycle times in the apparel industry has traditionally averaged more than 6 months, Zara has achieved cycle times of 5 to 6 weeks. This speed allows Zara to introduce new design every week & to change 75% of its merchandise display every 3 to 4 weeks. Thus, Zara's products on display match customer preferences much more closely than those of competitors. As a result, Zara sells most of the products at full price and has about half the markdowns in its stores compared to the competition.

Zara manufactures its apparel using a combination of flexible & quick sources in Europe (mostly Portugal & Spain) & low-cost-sources in Asia. This contrasts with most apparel manufacturers, who have moved most of their manufacturing to Asia. About 40% of the manufacturing capacity is owned by Inditex, with the rest outsourced. Products with highly uncertain demand are sourced out of Europe, whereas products that are more predictable are sourced from its Asian locations.

More than 40% of its finished-goods purchases & most of its in-house production occur after the sales season starts. This compares with less than 20% production after the start of sales season for a typical retailer. This responsiveness & the postponement of decisions until after trends are known allow Zara to reduce inventories & forecast error. Zara has also invested heavily in information technology to ensure that the latest sales data are available to drive replenishment & production decisions.

Until 2002, Zara centralized all its European distribution and some of its global distribution through a single DC in Spain. It also had some smaller satellite DCs in Latin American countries. Shipments from the DCs to stores were made twice a week. This allow store inventory to closely match customer demand. As Zara has grown, it has built another DC in Spain.

In 2009, the company distributed to stores all over the world through eight Distribution Centers located in Spain. Zara Chain claimed an average delivery time of 24 hours for European Stores and up to a maximum of 48 hours for stores in America or Asia from the time order received by the Distribution Center. Shipment from DC to Retail Store were made several times a week. This helped store inventory to closely match customer demand.