PGDM IB, 2016-18

Inventory & Logistics Management

RM 205

Trimester –II, End-Term Examination: December 2016

Time allowed: 2 hrs 30 min | Max Marks: 50

Roll No: ____________

Instruction: Students are required to write Roll No on every page of the question paper, writing anything except the Roll No will be treated as **Unfair Means.** In case of rough work please use answer sheet.

Sections	No. of Questions to attempt	Marks	Marks
A	3 out of 5 (Short Questions)	5 Marks each	3*5 = 15
B	2 out of 3 (Long Questions)	10 Marks each	2*10 = 20
C	Compulsory Case Study	15 Marks	15
		Total Marks	**50**

Section A

Q1. Who are the “carriers”? Outline the different types of carriers prevalent in logistics business?

Q2. What modes of transportation are best suited for large, low value shipments in retail industry? Why? Discuss key drivers that may be used to identify 3rd party logistics service providers?

Q3. In the MTS environment, accurate forecasts and short system lead times are especially important. List out the challenges posed by MTS environment to a retail business?

Q4. Bandit Promotions P.Ltd. Find that demand for an item is normally distributed with mean of 2000 units a year and standard deviation of 400 units. Unit cost is INR 100, reorder cost is INR200, holding cost is 20 percent of value a year and lead time is fixed at 3 weeks. Describe an ordering policy that gives a 95% service level. What is the cost of safety stock?

Z=1.64

Q5. Even if containerization conveys numerous advantages to freight distribution, it does not come without challenges. Summarize the main drawback of containerization?

Section B

Q1.

1. A. Titan offers two brands of watches – Sonata and Fastrack. Sonata is targeted for a mass market while Fastrack is targeted at a premium segment. Should titan manage both brands with the same supply chains? Should they share warehouses, transportation, supply chain software and other assets or should Titan handle them separately in all area of business?

2. Warehousing (Distribution centres) plays a very vital role in retail industry, sketch the roles a warehouse does in managing the retail inventory? Also discuss precisely the role of value added warehousing?

Q2. "Cross docking essentially eliminates the inventory-holding function of a warehouse while still allowing it to serve its consolidation and shipping functions"- delineate the process of cross docking in a retail logistics hub? Also discuss briefly the future role of logistics hubs in retail industry?

Q3.

1. Consider the same case of CROMA and single product latest version of LED. Whenever DC has to place an order the K will be Rs. 45000 which is independent of the order size. The cost of TV unit is Rs. 2500 and annual inventory holding cost is about 18% of the product cost. Replenishment time is about two weeks. CROMA want to ensure 97% service level. CROMA has given the following data i.e. number of units sold in last 12 months. Specify the Reorder level and order quantity for DC. Z=1.88

Month	S	O	N	D	J	F	M	A	M	J	J	A
Sales	200	152	100	221	287	176	151	198	246	309	98	156

2. A company is examining two choices for moving its goods from the plant to its depot in eastern India; truck and rail. The relevant information is as follows:

Transport Mode	Transport lead time (days)	Rate (Rs/unit)	Shipment size(Units)
Rail	12	20	5,000
Road	4	30	500

The company is planning to ship 20,000 units per year. The cost of the product is Rs. 500 per unit. Assume the inventory-carrying to be 20 percent.

a. Which mode of transport should the company choose?
b. Will your answer change if you realize that the time shown above is average times and that actually time will follow a normal distribution with a standard deviation of 4 days.

Section C

British manufacturing companies can save USD 2.4bn a year by developing effective supply chain relationships with customers and suppliers. This is the conclusion of a new repot, based on research for the institute of logistics, by A.T. Kearney, management consultants, and Manchester School of Management of UMIST. The report says that collaboration in the supply chain is not being fully exploited in the United Kingdom, with a cost penalty estimated at 6 percent of purchased material costs each year.
Although 92 percent of manufacturing companies say they have, or intend to have, supply chain relationships with customers and suppliers, less than a third have bothered to measure the costs and benefits associated with these initiatives. As a result, many companies are unable to develop relationships to the point where they deliver tangible results rather than rhetoric claiming 'partnership'. The difference between results and rhetoric can generate savings of up to 6 percent in purchased material costs each year, according to Steve Young of A.T. Kearney. For a typical USD 100m turnover manufacturer, this would represent around USD 2m in lost opportunity annually. The report shows that this failure to measure that 'pain and gain' of closer supply chain relationships makes it difficult to demonstrate that they have been a success in anything other than a subjective way, or to identify areas in which the relationships could be further improved. As a result, few relationships progress beyond the stage of limited cooperation at an operational level.

Development to more advanced levels is also held back by a concern on the part of suppliers about becoming over-dependent on their major customers, even though they commonly wish to increase their customers' dependence on them. The reluctance of firms to make themselves too vulnerable to particular customers acts as a constraint on the relationships that are required to improve interface and share ideas on how to reduce costs and improve service and quality. The study found that over three-quarters of the collaborative initiatives studied brought benefits to other relationships, so that developing the right relationships can be a powerful driver of change within a company overall, through the transfer of ideas and learning. This means that the idea of 'win-win' relationships needs to be treated with some caution. Some evidently successful projects appeared to entail considerable imbalances in the distribution of costs and benefits, typically with the supplier paying and the customer benefits. Owner, this makes sense where the supplier transfers the learning and applies it to other areas of the business, or where the level of trust builds over time to encourage collaboration at a strategic level in areas such as market entry and product innovation.

The evidence suggests that supply chain integration is not being fully exploited. The links that exist are still fundamentally arms length, with traditional behaviours and 'them and us' attitudes. Effective partnerships rise above this to look at the extended enterprise, from raw material sources through to end customer, from a total business, rather than a narrow buyer-seller perspective.

This is not achieved overnight. The report characterizes courtship that can ultimately lead to partnership in four ways:

1. Clear goals endorsed by senior management that reflect significant business objectives
2. Accurate measurement of costs and benefits allowing prioritization of effort and demonstration of success.
3. Commitment of an appropriate level and quality of resources on both sides to make real progress quickly.
4. Active learning processes to share best practice information across both organisations, thus leveraging individual relationships and building partnerships.

Partnerships based on this strong foundation will deliver results rather than rhetoric. Steve young says: 'British industry needs to stop flirting with relationships and start going steady with partners who have the potential to make a difference. Each partner should expect a degree of nervousness in the other much like marriage, if a=only because collaboration creates a sense of dependency. This nervousness should be tolerated until confidence is established. It should be understood that while the customer may get immediate benefits through substantial cost savings, the supplier may suffer short-term pain before benefiting form its new competitive position.'

If there are changes in both customers' and suppliers' operations there is likely to be an equal distribution of costs and benefits – including long-term strategic advantages. However, where the changes are predominantly made by the supplier, the benefits are skewed towards the customer and the costs towards the supplier.

Questions:

1. Explain the supply chain system Of the British Industry with the help of a schematic diagram?
2. What are the strategies recommended/adopted to deliver results?
3. 'win-win relationships needs to be treated with some caution' – Explain your stand?
4. 'Supply chain relationships hold the key for successes' –discuss.?