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#### CASE STUDIES DOMESTIC AND INTERNATIONAL LOGISTICS

CASE STUDY NUMBER	1
LEVEL OF TEACHING	L3
PROGRAM OUTCOMES COVERED	PO2, PO4, PO6, PO7
COURSE OUTCOME COVERED	C329.2

Varun Limited, a cash rich company involved in business of fruit processing and making of fruit syrup (sarbat). They are selling their products under the very popular brand "Natural". They have a modern plant, which is located near Bhopal. The fruits purchased from various fruit cultivating areas such as grapes from Nasik, etc., to make effective localized procurement they have four procurement centres with cold storage facilities. The fruits are transported from this procurement centre to factory using hired trucks. While transporting frits from warehouse to factory, there were shortages and also damages/ decompositions that varied from 15% to 25% and also there were inconsistency in transit time.

The "Natural" packaging is one of the reasons for popularity of his brand. The quality and taste of syrup has created very good consumer base for sarbat. The sarbat is sold in ten different variants and three different packaging sizes. The sarbat loses the taste if it is kept for longer period (2 months) in normal condition. The taste remains to its best if it is kept in cold condition. The sarbat is distributed through 20 different distribution centers and are equally distributed in each zone. These centers are directly reporting to factory and passes information once a week. These sarbat were packed in very strong secondary packaging, even then there were 18% to 20% damages in transit. There was excess inventory in some of the distribution centers while shortage in others. Also, specifically in summer season there were complaints about the quality (change in taste) of syrup. Entry of multinationals with synthetic sarbat increased the competition and put lot of pressure on "Natural".



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The Managing Director of Varun Limited formed a team of senior executive to come with concrete plan to fight the competition and increase market share and margin. And they decided to appoint a logistic consultant to overcome some of the problem. The Managing Director wants to appoint you as logistics consultant to solve the above problems so that the company can fight competition and increase market share and margin.

#### **Questions**

- 1. Suggest proper transportation policy to ensure minimum transportation loss of fruits and Sarbat and reduction in packaging cost.
- 2. Suggest the appropriate distribution method to maintain the quality of Sarbat
- 3. Develop a demand forecasting techniques to take care of seasonality, reduction in inventory and shortage of some area



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CASE STUDY NUMBER	2
LEVEL OF TEACHING	L3
PROGRAM OUTCOMES COVERED	PO2, PO6.
COURSE OUTCOME COVERED	C329.1

Ram &Ram settled down in farm near Bangalore after their 15 year stint at USA. They started a Dairy farm and were growing traditional crops for last ten years. The income fluctuated widely. However Rama who is agri science graduate took over a small field and started growing herbs more of a hobby in the beginning. She started selling the herbs to local people and also to tourist who come to stay in the farm house as well those on the way to Mysore. The herb business started growing with demand exceeding supply. Rama took over second field, growing exotic herbs and also opened a visitors centre where a demonstration was organized to enable them taste samples with herbs grown in the farm.

After about two years she converted some part of the farm house to accommodate "Herbs Kitchen" which prepared a ready to use mix of herbs in cooking and the product was promoted as "healthy stuff". Herb mixtures are traditionally said to have beneficial effects. The farm has become popular and attracted tourists. Rama was delivering 100 parcels a week to nearby areas and also send 200 parcels by courier to more distant customers. She has started accepting order through the web site and e-mails. Thus the herb business became a main stay of Ram & Rama. Rama is contemplating to take a industrial shed closer to Bangalore to produce the herb mixes. A full fledged marketing team may be required. The couple estimated that in order to remain profitable they need ten times the current sales. Rama is also contemplating using catalogue sales and increasing the use of website.

#### **Questions**

- 1. How does Rama currently organize her logistics? What do you think are her aims and priorities?
- 2. What would be the effect of expansion on logistics? What problems Rama would face and what options do she has to overcome them?



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CASE STUDY NUMBER	3
LEVEL OF TEACHING	L3
PROGRAM OUTCOMES COVERED	PO2, PO4, PO6, PO7
COURSE OUTCOME COVERED	C329.2

DENSO has to meet tough quality standards. First, it needs to satisfy Toyota's rigid quality standards by using TQM and by striving for zero defects. Second, it complies with both ISO 9001 and QS 9000 certification so that it can qualify as a supplier for auto manufacturers in Europe and North America. QS 9000 is a quality standard specifically for the auto Industry. Chrysler, Ford and General Motors established QS 9000 in 1994 to provide requirements and measurable (events that can be quantified and specific measures that can be used to describe those events) for the automotive industry. QS9000 is derived from ISO 9001, but it is more specific to the auto industry. Under the guidelines, suppliers must adapt their quality systems to meet the expectations of the automakers. QS9000 is required for any supplier of Ford, General Motors and Daimler Chrysler.

#### **QUESTIONS:**

- (a) How has DENSO's relationship with Toyota affected its international strategy?
- (b) What types of quality programs has DENSO adopted and how do you think they will affect DENSO's future as a global supplier?



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CASE STUDY NUMBER	4
LEVEL OF TEACHING	L3
PROGRAM OUTCOMES COVERED	PO2, PO4, PO6, PO7
COURSE OUTCOME COVERED	C329.2

Dry Ice Inc. is a manufacturer of air conditioners that has seen its demand grow significantly. They anticipate nationwide demand for the year 2001 to be 1,80,000 units in the South, 1,20,000 units in the Midwest, 1,10,000 units in the East and 1,00,000 units in the West. Managers at Dry Ice are designing the manufacturing network and have selected four potential sites- New York, Atlanta, Chicago and San Diego. Plants could have a capacity of either 2,00,000 or 4,00,000 unit. The annual fixed cost at the four locations are (New York \$6 Million, Atlanta \$5.5 million, Chicago \$5.6 million and San Diego \$6.1 million) along with the cost of producing and shipping an air conditioner to each of the four markets.

#### **QUESTIONS:**

- (a) Where should Dry Ice build its factories?
- (b) How large should they be?



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CASE STUDY NUMBER	5
LEVEL OF TEACHING	L3
PROGRAM OUTCOMES COVERED	PO2, PO4, PO6, PO7
COURSE OUTCOME COVERED	C329.2

Logistics International LLC, a third party logistics provider throughout the United States and Canada operates a total of 186,000 square feet in two RF enabled warehouses adjacent to the Minneapolis/St. Paul Airport. In addition, the company operates temporary warehouses on the East and West coasts as needed to support special programs for their customers. Established in 1991, Logistics International helps companies design, build and manage their supply chains using dynamic, flexible solutions to help maximize profitability.

Logistics International has grown their business by providing domestic and international transportation, warehousing fulfilment, installation and project management services to customers in a wide variety of industries including the printing, publishing, fulfilment, photo reproduction, retail and other industries. Logistics International also provides trade show and exhibition shipping and long/short term warehousing storage in both real and virtual locations. Because it services a range of industries, Logistics International stores a large variety of products and needs to capture attributes such as lots, serial numbers, and track lineal feet.

As with most third party logistics providers, Logistics International decided to procure an enterprise level warehouse management system in order to improve internal business and financial controls, improve inventory and labour management and improve the level of customer satisfaction.

#### Questions

- 1. How to provide real time visibility across the different types of business units
- 2. How to provide a seamless flow of accurate information and data flow across all business units and to customers

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3. How to utilize automation to increase accuracy, manage labour costs, provide accurate customer-specific billing and enhance internal financial controls.