Sample Answers to In-Text Questions

# Chapter 8: Supply Chain Design and Location Planning

## Discussion Questions

1. Discuss briefly each of these four phases of designing a supply-chain network.

Answer: What and how much to produce at each stage, The amount of inventory to hold at each stage, what type of information to be shared among partners, and where facilities should be located, and the details for each facility.

1. Discuss the strategic importance of facility location decisions

Answer: Facility locations have a long term effect. They cannot be changed easily, and involve capital budgeting dollars.

1. What are some of the reasons why companies find new locations or relocate their existing facilities?

Answer: The customer center has moved, they need to expand, tariffs have changed, political factors have changed, laws have become unfavorable, infrastructure changes, etc.

1. What are some of the disadvantages of relocating facilities to a foreign country?

Answer: Foreign location factors include market size, costs, infrastructure, host economy, language barriers, political risks, etc.

1. The global facility location decision process occurs in a sequence of three stages:
2. Country decision, (2) Regional/community decision, and (3) Site decision.

List and briefly explain each of the critical success factors for the first decision stage of choosing the country.

Answer: Labor climate, transportation costs, market proximity, suppliers and resource locations, competitor locations, and sustainability factors, tax laws, cultural and social factors, economic factors, etc.

1. How do locations strategies for service facilities differ than location strategies for manufacturing facilities?

Answer: Service industries are more concerned with locations in close proximity and convenient to customers.

1. Why would the location decision for a hospital be different than the location decision for a supermarket? In terms of critical success factors, what are the similarities and differences?

Answer: Student examples may vary

1. What minimum set of criteria should service firms establish when selecting new locations?

Answer: In general, for the service sector, the critical success factors in locating facilities are the proximity of competitors, convenient access for customers, traffic volumes and patterns, parking availability, and, demographics such as the age and income levels of customers, and the size of the population. Customer safety is also important, traffic volumes, and other conveniences.

1. What is a Geographic Information System (GIS)? How can a restaurant use this tool to select a new facility for its operation?

Answer: You can evaluate different sites based on criteria held in the GIS database. Several criteria can be displayed on a map to help in decision making. A restaurant can pick different customer demographics, supplier locations, and other conveience for business success.

1. What sustainability and ethical issues do companies need to consider when making location choices?

Answer: protection of resources, efficiencies in transportation and energy, access to recycling and waste disposal, environmental laws and regulations, and cost effectiveness, given the CSR goals.

1. ArcelorMittal is planning to build a steel plant in India. Discuss some of the critical country, region, and site related factors the company needs to evaluate to build the plant?
2. Answer: Student examples can vary over the spectrum of the recommended criteria for locations.

## Critical Thinking Exercise

The article “[Time to Head Home for Some Manufacturers](http://www.businessweek.com/magazine/for-some-us-manufacturers-time-to-head-home-02022012.html?chan=magazine+channel_news+-+global+economics)” highlights the importance of making global location decisions based on the total cost of ownership. In other words, companies need to make global location choices by evaluating all the factors that impact the total cost of doing business in a foreign location. Global location decisions should not be based on just availability of cheap labor or raw materials, but should include factors such as labor productivity, distance, and protection of intellectual property rights.

**Read the article titled “**[**Time to Head Home for Some Manufacturers**](http://www.businessweek.com/magazine/for-some-us-manufacturers-time-to-head-home-02022012.html?chan=magazine+channel_news+-+global+economics)**” and answer the discussion questions listed. Click on the following link to access the article.**

<http://www.businessweek.com/magazine/for-some-us-manufacturers-time-to-head-home-02022012.html>

## Discussion Questions

1. Why is the information in this article important to operations managers?

Answer: Operations managers need to be aware of the hidden costs of import products. The term TCO has now grown to include all of the costs of inconveniences due to offshoring.

1. What are the business reasons for relocating factories back in the U.S.?

Answer: There are many reasons to make corporate life easier by not having the costs and risks of purchasing from overseas. It is also good for the American economy to bring suppliers and some jobs back to the US.

1. How will relocating manufacturing facilities in the U.S. affect how operations and supply chains are managed?

Answer: The supply chains become less complex, costly and slow. Faster deliveries impacts inventory levels downward for increased savings and responsiveness.

1. What is the U.S. government's role in fostering or creating manufacturing work in the U.S.? Who will finance this role?

Answer: Student opinions will vary  
5. What is the near-term future of manufacturing employment in the U.S.?

Answer: The near term future of Mfg. employment will probably decrease due to chasing low cost countries’ pricing, until there is a shift in thinking towards on-shoring. At best it will remain mostly the same. In the future, there are many reasons to support on-shoring.