Global Business Today **6e**

cuu duong than cong. com

by Charles W.L. Hill

cuu duong than cong. com

Copyright © 2009 by The McGraw-Hill Companies, Inc. All rights reserved.

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Chapter 14

Global Production, Outsourcing, and Logistics

cuu duong than cong. com

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Introduction

- In today's global economy, firms must decide
  - where to locate productive activities
  - what the long-term strategic role of foreign production sites should be
  - whether to own foreign production activities or outsource those activities
  - how to manage a globally dispersed supply chain and what the role of Internet-based information technology should be in the management of global logistics
  - whether to manage global logistics or outsource

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Strategy, Production, and Logistics

Question: How can production and logistics be conducted internationally to

1. lower the costs of value creation
2. add value by better serving customer needs?

- Production refers to activities involved in creating a product
- Logistics refers to the procurement and physical transmission of material through the supply chain, from suppliers to customers

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Strategy, Production, and Logistics

- The strategic objectives of the production and logistics function are
  - to lower costs
  - to increase product quality by eliminating defective products from both the supply chain and the manufacturing process
- These two objectives are interrelated

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Strategy, Production, and Logistics

- Better quality control helps firms reduce costs because
  - time is not wasted manufacturing poor quality products that cannot be sold
  - re-work and scrap costs are lower
  - warranty costs and the time used too fix defective products are lower

cuu duong than cong . com

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Strategy, Production, and Logistics

Question: What management tool is used to increase the reliability of product offerings?

- The Six Sigma quality improvement program aims to reduce defects, boost productivity, eliminate waste, and cut costs throughout a company
- Six Sigma is a direct descendant of total quality management (TQM)
- In addition, some countries have also promoted specific quality guidelines like the European Union's ISO 9000 standards

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Strategy, Production, and Logistics

- Two other objectives are important for international companies

1. production and logistics functions must be able to accommodate demands for local responsiveness
2. production and logistics must be able to respond quickly to shifts in customer demand

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Where to Produce

Question: Where should production activities be located?

- When deciding where to locate production facilities, firms must consider
  - country factors
  - technological factors
  - product factors

cuu duong than cong. com

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Country Factors

- Firms should locate manufacturing activities where economic, political, and cultural conditions, including relative factor costs, are most conducive to the performance of that activity
- Regulations affecting FDI and trade can significantly affect the appropriateness of specific countries, as can expectations about future exchange rate changes

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Technological Factors

- The type of technology a firm uses in its manufacturing can affect location decisions
- Firms should consider

1. The level of fixed costs involved

- If the fixed costs of setting up a manufacturing plant are very high, it could make sense for the firm to serve the world market from a single location or from a very few locations

2. The minimum efficient scale of the technology

- The larger the minimum efficient scale (the level of output at which most plant-level scale economies are exhausted) of a plant, the more likely centralized production makes sense

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Technological Factors

3. The flexibility of the technology

- The term flexible manufacturing technology or lean production covers a range of manufacturing technologies that are designed to:
  - reduce set up times for complex equipment
  - increase the utilization of individual machines through better scheduling
  - improve quality control at all stages of the manufacturing process

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Technological Factors

- So, flexible manufacturing technologies enable firms to produce a wide variety of end products at a unit cost that traditionally would require mass production of a standardized output
- Mass customization implies that a firm may be able to customize its product range to suit the needs of different customer groups without bearing a cost penalty

cuu duong than cong . com

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Technological Factors

- Flexible machine cells (grouping of various types of machinery, a common materials handler, and a centralized cell controller) are another common flexible manufacturing technology
- Adopting flexible manufacturing technologies can help improve the competitive position of firms by allowing the firm to customize products to meet the demands of small customer groups in different national markets
- So, firms can act like a local firm without bearing the costs of establishing local manufacturing facilities

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Technological Factors

Question: When does it make sense to concentrate production at a few choice locations?

- Concentrated production makes sense when
  - fixed costs are substantial
  - the minimum efficient scale of production is high
  - flexible manufacturing technologies are available
- Concentrated production does not make sense when
  - both fixed costs and the minimum efficient scale of production are relatively low
  - appropriate flexible manufacturing technologies are not available

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Product Factors

- Two product factors impact location decisions

1. The product's value-to-weight ratio
   - If the value-to-weight ratio is high, it is practical to produce the product in a single location and export it
   - If the value-to-weight ratio is low, there is greater pressure to manufacture the product in multiple locations across the world
2. Whether the product serves universal needs
   - The need for local responsiveness is reduced for products that do, which increases the attractiveness of concentrated manufacturing

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Locating Production Facilities

- There are two basic strategies for locating manufacturing facilities
  1. Concentrating them in the optimal location and serving the world market from there
  2. Decentralizing them in various regional or national locations that are close to major markets

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Locating Production Facilities

	Concentrated Production Favored	Decentralized Production Favored
Country factors		
Difference in political economy	Substantial	Few
Difference in culture	Substantial	Few
Difference in factor costs	Substantial	Few
Trade barriers	Substantial	Few
Location externalities	Important in industry	Not important in industry
Exchange rates	Stable	Volatile
Technological factors		
Fixed costs	High	Low
Minimum efficient scale	High	Low
Flexible manufacturing technology	Available	Not Available
Product factors		
Value-to-weight ratio	High	Low
Serves universal needs	Yes	No

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Classroom Performance System

Decentralized production will be favored when

a) There are substantial differences in political economy

b) Fixed costs are high

c) The product's value-to-weight ratio is high

d) Exchange rates are volatile

cuu duong than cong. com

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Classroom Performance System

Firms will prefer concentrated production when

a) Minimum efficient scale is high

b) Location externalities are not important

c) The product does not serve universal needs

d) There are few trade barriers

cuu duong than cong. com

CuuDuongThanCong.com https://fb.com/tailieudientucntt

The Strategic Role of Foreign Factories

Question: Does the rationale for establishing a foreign production facility change?

- The strategic role of foreign factories and the strategic advantage of a particular location can change over time
- A factory initially established to make a standard product to serve a local market, or to take advantage of low cost inputs, can evolve into a facility with advanced design capabilities
- As governmental regulations change and/or countries upgrade their factors of production the strategic advantage of a particular location can change

CuuDuongThanCong.com https://fb.com/tailieudientucntt

The Strategic Role of Foreign Factories

- As the strategic role of a factory is upgraded and a firm develops centers of excellence in different locations worldwide, it supports the development of a transnational strategy
- A focus of a transnational strategy is global learning (the idea that valuable knowledge does not reside just in a firm's domestic operations, it may also be found in its foreign subsidiaries)
- So, managers should promote the idea that factories are potential centers of excellence with strategic importance to the firm

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Outsourcing Production: Make-or-Buy Decisions

Question: Should an international business make the component parts to go into their final product or outsource them?

- Make-or-buy decisions (decisions about whether to perform a certain value creation activity in-house or outsource it to another firm) are important to a firm's manufacturing strategy

CuuDuongThanCong.com https://fb.com/tailieudientucntt

The Advantages of Make

- Making component parts in-house (vertical integration) is attractive because it
  1. is associated with lower costs
  2. facilitates investments in highly specialized assets
  3. protects proprietary technology
  4. facilitates the scheduling of adjacent processes

CuuDuongThanCong.com https://fb.com/tailieudientucntt

The Advantages of Make

1. Lowering Costs

- A firm should consider manufacturing a part in-house if the firm is more efficient at that a production activity than any other enterprise

2. Facilitating Specialized Investments

- In-house production makes sense when substantial investments in specialized assets (assets whose value is contingent upon a particular relationship persisting) are required to manufacture a component

CuuDuongThanCong.com https://fb.com/tailieudientucntt

The Advantages of Make

3. Protecting Proprietary Technology

- When proprietary technology is involved, in-house production can make sense to maintain control over the technology

4. Improving Scheduling

- In some cases, in-house production can make planning, coordination, and scheduling of adjacent processes easier

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Classroom Performance System

Which of the following is not one of the key factors that influence the decision of where to produce?

a) Country factors

b) Competitors factors

c) Technological factors

d) Product factors

cuu duong than cong. com

CuuDuongThanCong.com https://fb.com/tailieudientucntt

The Advantages of Buy

- Buying component parts from independent suppliers (outsourcing) is attractive because it
  1. gives the firm greater flexibility
  2. helps drive down the firm's cost structure
  3. helps the firm to capture orders from international customers

cuu duong than cong. com

CuuDuongThanCong.com https://fb.com/tailieudientucntt

The Advantages of Buy

1. Strategic Flexibility

- Outsourcing provides the firm with the flexibility to switching orders between suppliers as circumstances dictate
- This ability is particularly important when changes in exchange rates and trade barriers the attractiveness of supply sources

cuu duong than cong. com

CuuDuongThanCong.com https://fb.com/tailieudientucntt

The Advantages of Buy

2. Lower Costs

- Firms that outsource can avoid
  - the challenges involved with coordinating and controlling additional subunits
  - the lack of incentive associated with internal suppliers
  - the difficulties with setting appropriate transfer prices

3. Offsets

- Outsourcing can help firms capture more orders from suppliers' countries

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Trade-Offs

- The benefits of manufacturing components in-house are greatest when
  - highly specialized assets are involved
  - when vertical integration is necessary for protecting proprietary technology
  - when the firm is more efficient than external suppliers at performing a particular activity

cuu duong than cong. com

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Strategic Alliances with Suppliers

Question: Can strategic alliances with suppliers give firms the benefits of vertical integration?

cuu duong than cong. com

- Some firms have tried to use strategic alliances to capture some of the benefits of vertical integration, without having the associated organizational problems
- However, in some cases, this backfires as firms find their strategic flexibility limited by commitments to alliance partners

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Classroom Performance System

Buying from independent suppliers offers all of the following advantages except

a) It gives the firm greater flexibility

b) It helps drive down the firm's cost structure

c) It protects proprietary property

d) It helps the firm to capture orders from international customers

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Managing a Global Supply Chain

Question: Why is logistics important to the international firm?

- Logistics encompasses the activities necessary to get materials to a manufacturing facility, through the manufacturing process, and out through a distribution system to the end user
- In international business, this is complicated by distance, time, exchange rates, and customs barriers, etc.
- Efficient logistics can have a major impact upon a firm's bottom line

CuuDuongThanCong.com https://fb.com/tailieudientucntt

The Role of Just-in-Time Inventory

Question: How can a just-in-time inventory process help a firm?

- A just-in-time (JIT) economizes on inventory holding costs by having materials arrive at a manufacturing plant just in time to enter the production process, and not before
- It can result in major cost savings from reduced warehousing and inventory holding costs
- It can help firms spot defective parts, take them out of the manufacturing process, and boost product quality

CuuDuongThanCong.com https://fb.com/tailieudientucntt

The Role of Information Technology and the Internet

Question: What is the role of information technology in materials management?

- Electronic data interchange (EDI)
  - facilitates the tracking of inputs
  - allows the firm to optimize its production schedule
  - allows the firm and its suppliers to communicate in real time
  - eliminates the flow of paperwork between a firm and its suppliers

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Critical Discussion Question

1. An electronics firm is considering how best to supply the world market for microprocessors used in consumer and industrial electronic products. A manufacturing plant costs approximately $500 million to construct and requires a highly skilled work force. The total value of the world market for this product over the next 10 years is estimated to be between $10 and $15 billion. The tariffs prevailing in this industry are currently low. Should the firm adopt a concentrated or decentralized manufacturing strategy? What kind of location(s) should the firm favor for its plant(s)?

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Critical Discussion Question

2. A chemical firm is considering how best to supply the world market for sulfuric acid. A manufacturing plant costs approximately $20 million to construct and requires a moderately skilled work force. The total value of the world market for this product over the new 10 years is estimated to be between $20 and $30 billion. The tariffs prevailing in this industry are moderate. Should the firm favor concentrated manufacturing or decentralized manufacturing? What kind of location(s) should the firm seek for its plant(s)?

cuu duong than cong. com

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Critical Discussion Question

3. A firm must decide whether to make a component part in-house or to contract it out to an independent supplier. Manufacturing the part requires a non-recoverable investment in specialized assets. The most efficient suppliers are located in countries with currencies that many foreign exchange analysts expect to appreciate substantially over the next decade. What are the pros and cons of (a) manufacturing the component in-house and (b) outsourcing manufacture to an independent supplier? Which option would you recommend? Why?

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Critical Discussion Question

4. Reread the Management Focus on Philips in China then answer the following questions:

a) What are the benefits to Philips of shifting so much of its global production to China?

b) What are the risks associated with a heavy concentration of manufacturing assets in China?

c) What strategies might Philips adopt to maximize the benefits and mitigate the risks associated with moving so much product?

CuuDuongThanCong.com https://fb.com/tailieudientucntt

Critical Discussion Question

5. Explain how an efficient materials management function can help an international business compete more effectively in the global marketplace.

cuu duong than cong. com

CuuDuongThanCong.com https://fb.com/tailieudientucntt