

International Business 7e

by Charles W.L. Hill

Chapter 16

Global Production, Outsourcing and Logistics

Introduction

International firms must answer five interrelated questions:

1. **Where** should production activities be located?
2. What should be the **long-term strategic role** of foreign production sites?
3. Should the firm **own foreign production activities**, or is it better to **outsource** those activities to independent vendors?
4. **IF OUTSOURCING**, then, how should a **globally dispersed supply chain** be managed?
5. Should the firm manage **global logistics (Exporting or Outsourcing)** itself, or should it outsource the management to enterprises that specialize in this activity?

Strategy, Production, And Logistics

- ❖ Firms need to identify how production and logistics can be conducted internationally to:
 - **lower the costs** of value creation
 - **add value** by better serving customer needs
- ❖ **Production:** activities involved in creating value added
- ❖ **Logistics:** the procurement and physical transmission of material through the supply chain, from suppliers to customers

Strategy, Production, And Logistics

- ❖ To lower costs, firms can:
 - disperse production to those locations where activities can be performed most efficiently
 - manage the global supply chain efficiently to better match supply and demand
 - eliminate defective products from the supply chain and the manufacturing process in order to improve product quality
- ❖ Improved quality will also reduce costs

Strategy, Production, And Logistics

- **To add value** by better serving customer needs, international firms must:
- Accommodate responsiveness demands for local
- Respond quickly to shifts in customer demand

Where To Produce

❖ **Three factors are important when making location decisions:**

1. country factors

2. technological factors

3. product factors

Where To Produce: Country Factors

- ❖ Concentrating production at a few choice locations makes sense when:
 - fixed costs are substantial
 - the minimum efficient scale of production is high
 - flexible manufacturing technologies are available
- ❖ Production in multiple locations makes sense when:
 - both fixed costs and the minimum efficient scale of production are relatively low
 - appropriate flexible manufacturing technologies are not available

Where To Produce: Country Factors

- ❖ Country factors that can affect location decisions include:
 - the availability of **skilled labor** and supporting industries
 - formal and informal **trade barriers**
 - expectations about future **exchange rate changes**
 - **transportation costs**
 - **regulations** affecting FDI

Where To Produce: Technological Factors

❖ The type of technology a firm uses in its manufacturing can affect location decisions

❖ Three characteristics of a manufacturing technology are of interest:

1. the level of **fixed costs**
2. the minimum **efficient scale** of production
3. the flexibility of the **technology**

Where To Produce: Technological Factors

1. The level of fixed costs:

❖ If the **fixed costs** of setting up a manufacturing plant are **high**, it might make sense to serve the world market from a **single location** or from a few locations

❖ When **fixed costs** are relatively **low**, **multiple** production **plants** may be possible

❖ Producing in multiple locations allows firms to respond to local markets and reduces dependency on a single location

Where To Produce: Technological Factors

2. The minimum efficient scale:

- ❖ 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 in a **single location** or a **limited number of locations** makes sense
- ❖ A **low minimum efficient scale** allows the firm to respond to local market demands and hedge against currency risk by operating in **multiple locations**

Where To Produce: Technological Factors

3. The flexibility of technology:

A **production method** designed to adapt to changes in the type and quantity of the product being manufactured, e.g., machines and computerized equipment

The flexibility of technology:

- (i) improves **efficiency** and lower production costs
- (ii) can be a key to a **make-to-order strategy** allowing product customization
- (iii) comes with **higher upfront costs**, e.g., Purchasing and installing the specialized equipment that allows for customization may be costly compared with more traditional systems

Where To Produce: Product Factors

❖ **Two product factors impact location decisions:**

1. the product's value-to-weight ratio

2. whether or not the product serves universal needs

Where To Produce: Product Factors

1. **Value-to-weight ratio:** a measure of the monetary value a product has per kilogram or pound

- A high value-to-weight ratio, means that the product is expensive and doesn't weigh a lot. The cost to ship the products is low. It makes more sense to produce in one place and ship from there. **e.g., diamonds**
- A low value-to-weight ratio are heavy inexpensive items like paint and certain bulk chemicals. When shipped long distances it can get expensive. It is more cost efficient to produce these items in multiple markets. **e.g., coal**

Value-to-weight ratio: EXAMPLE

- ❖ Deciding whether to ship goods by sea/road, the longer but cheaper way, or by air, usually the shortest but more expensive:
 - The cost savings in total inventory holding costs must be compared to the cost savings from using the cheaper method of transport

Value-to-weight ratio: EXAMPLE

❖ **EXAMPLE:** An item has an inventory holding cost of 25% per year, the difference between transporting one kilogram of the good by road and air is €20, and the time saving is 10 days

❖ **THEN,** the value-to-weight ratio (r) to justify transporting the good by air instead of road is:

$$\text{❖ } r = (365 * 20) / (0.25 * 10) = \text{€ } 2,920 \text{ p/kgr}$$

❖ **Meaning that:** the value-to-weight ratio must be above €2,920 per kilogram for air transport to be justifiable.

Where To Produce: Product Factors

2. whether or not the product serves universal needs:

When products serve universal needs, the need for local responsiveness falls, increasing the attractiveness of concentrating manufacturing in a central location

Locating Production Facilities: Summary

	Concentrated Production Favored	Decentralized Production Favored
Country Factors		
Differences in political economy	Substantial	Few
Differences in culture	Substantial	Few
Differences in factor costs	Substantial	Few
Trade barriers	Few	Substantial
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

Outsourcing Production: “Make-or-Buy” Decisions, Strategic Alliances

- ❖ Should an international business “Make-or-Buy” the component parts to go into their final product?
 - Make-or-Buy decisions:
 - are important in many firms' manufacturing strategies
 - involving international markets are more complex than those involving just domestic markets
 - Service firms also face make-or-buy decisions as they choose which activities to outsource and which to keep in-house
- ❖ Should firms proceed to strategic alliances with key suppliers to capture the benefits of vertical integration (Make-or-Buy)?

Outsourcing Production: The Advantages of “Make”

- ❖ **Vertical integration: “Making”** component parts in-house:
 1. **lowers costs:** if a firm is more efficient at that production activity than any other enterprise, it may pay the firm to continue manufacturing a product or component part in-house
 2. **facilitates investments in highly specialized assets:** internal production makes sense when substantial investments in **specialized assets/capital** are required to manufacture a component

Outsourcing Production: The Advantages of “Make”

3. **protect proprietary technology**: a firm might prefer to make component parts that contain proprietary technology in-house in order to maintain control over the technology
4. **facilitate the scheduling of adjacent processes**: the **weakest argument** for vertical integration is that the resulting production cost savings make planning, coordination, and scheduling of adjacent processes easier

Outsourcing Production: The Advantages of “Make”

The benefits of manufacturing components in-house (“**Make**”) are greatest when:

- ❖ highly specialized assets/capital are involved
- ❖ vertical integration is necessary for protecting proprietary technology
- ❖ the firm is more efficient than external suppliers at performing a particular activity

Outsourcing Production: The Advantages of “Buy”

“Buying” component parts from independent suppliers:

1. gives the firm greater flexibility

- Buying component parts from independent suppliers, the firm can maintain its flexibility, switching orders between suppliers as circumstances dictate
- This is particularly important when changes in exchange rates and trade barriers alter the attractiveness of various supply sources over time

Outsourcing Production: The Advantages of “Buy”

2. helps drive down the firm's cost structure

Firms that buy components from independent suppliers **avoid**:

- the challenges involved with coordinating and controlling **the additional subunits** that are associated with vertical integration
- the **lack of incentive** associated with internal suppliers
- the difficulties with setting appropriate **transfer prices**

3. helps the firm capture orders from international customers

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

Outsourcing of Production: Strategic Alliances With Suppliers

- ❖ Sometimes, firms can capture the benefits of vertical integration without the associated organizational problems by forming long-term **strategic alliances with key suppliers**
- ❖ However, these commitments may actually limit strategic flexibility

Chapter 17

Global Marketing and R&D

Introduction

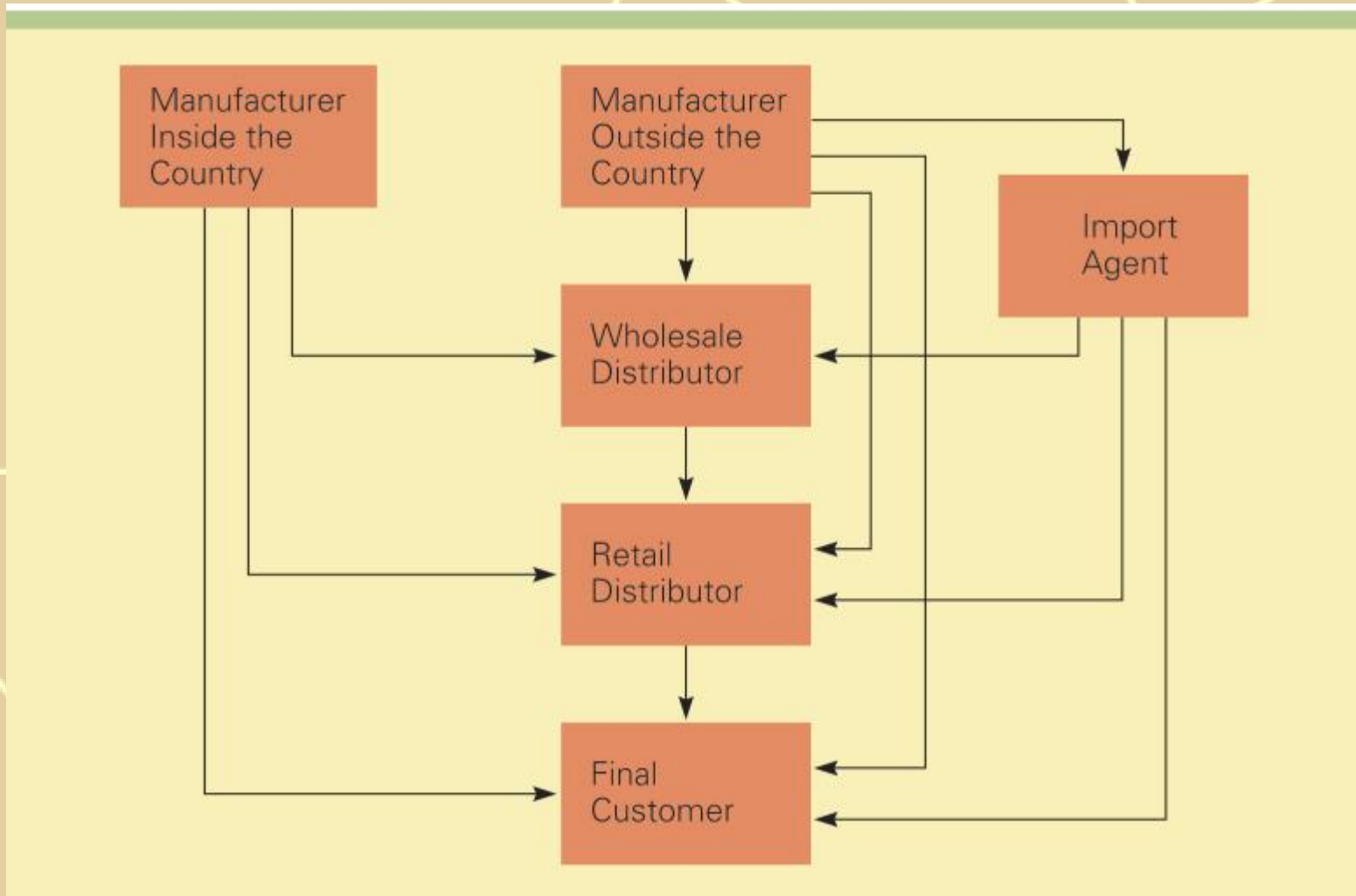
- ❖ The “**Marketing-mix**” (the choices a firm offers to its targeted market) comprises:
 - **product attributes**
 - **distribution strategy**
 - **communication strategy**
 - **pricing strategy**

Marketing-mix: Product Attributes

- ❖ **A product is like a bundle of attributes**
 - Products sell well when their attributes **match consumer needs**
 - If **consumer needs** were the **same** everywhere, a firm could sell the same product worldwide
 - But, **consumer needs vary** from country to country depending on **culture** (e.g., tradition, religion, education, language) and the **level of economic development** (e.g., GDP, per capita income)

Marketing-mix: Distribution Strategy

A Typical Distribution System



Distribution Systems

❖ There are four main differences in distribution systems:

1. retail concentration

2. channel length

3. channel exclusivity

4. channel quality

Distribution Systems: Retail Concentration

1. Retail Concentration

- In a **concentrated retail system**, a few retailers supply the market
- In a **fragmented retail system** there are many retailers, no one of which has a major share of the market
- **Developed countries** tend to have greater **retail concentration**, while **developing countries** are more fragmented

Distribution Systems: Channel Length

2. Channel Length: the number of intermediaries between the producer and the consumer

- When the producer **sells directly** to the consumer, the channel is very short
- When the producer **sells through an import agent, a wholesaler, and a retailer**, a long channel exists
- Countries with **fragmented retail systems** tend to have **longer channels**, while countries with **concentrated systems** have **shorter channels**

3. Channel Exclusivity

- An **exclusive distribution channel** is one that is difficult for outsiders to access
- Japan's system is an example of a very exclusive system

Distribution Systems: Channel Quality

4. Channel Quality: the expertise, competencies, and skills of established retailers in a nation, and their ability to sell and support the products of international businesses

- The **quality of retailers** is good in most developed countries, but is variable at best in emerging markets and less developed countries
- Firms may find that they have to devote considerable resources to upgrading channel quality

Marketing-mix: Communication Strategy

- ❖ Communicating product attributes to prospective customers is a critical element in the Marketing-mix
- ❖ How a firm communicates with customers depends partly on the **choice of channel**
- ❖ Communication channels available to a firm include
 - **direct selling**
 - **sales promotion**
 - **direct marketing**
 - **advertising**

Communication Strategy: International Communication

- ❖ **International communication** occurs whenever a firm uses a marketing message to sell its products in another country
- ❖ The effectiveness of a firm's international communication can be jeopardized (communication barriers) by:
 - 1. cultural barriers**
 - 2. source and country of origin effects**
 - 3. noise levels**

International Communication: Cultural Barriers

1. **Cultural Barriers:** it can be difficult to communicate messages across cultures
 - ❖ A message that means one thing in one country may mean something quite different in another
 - ❖ To overcome cultural barriers, firms need to develop **cross-cultural literacy**, and **use local input** when developing marketing messages

International Communication: Source and Country of Origin Effects

2. Source and Country of Origin Effects

- ❖ **Source Country effects** occur when the receiver of the message evaluates the message based on the status or image of the sender
 - Firms can counter negative source effects by de-emphasizing their foreign origins
- ❖ **Country of Origin effects** refer to the extent to which the place of manufacturing influences product evaluations

3. Noise Levels

- ❖ **Noise** refers to the amount of other messages competing for a potential consumer's attention
- ❖ In highly developed countries, **noise is very high**
- ❖ In developing countries, **noise levels** tend to be **lower**

Communication Strategies: Push vs Pull Strategies

Firms have to choose between two types of communication strategies:

- ❖ a **push strategy** emphasizes personnel selling
- ❖ a **pull strategy** emphasizes mass media advertising

The choice between the strategies depends upon:

- 1. product type and consumer sophistication**
- 2. channel length**
- 3. media availability**

Communication Strategies: Push vs Pull Strategies

1. Product Type and Consumer Sophistication

- ❖ Firms in **consumer goods industries** that are trying to sell to a **large market segment** usually use a **pull strategy**
- ❖ Firms that sell **industrial products** typically prefer a **push strategy**

2. Channel Length

- ❖ **A pull (push) strategy can work better with longer (shorter) distribution channels**

Communication Strategies: Push vs Pull Strategies

3. Media Availability

- ❖ A pull strategy relies on access to media advertising
- ❖ When media is not easily available, a push strategy may be more attractive

Communication Strategies: Push vs Pull Strategies

- ❖ In general, a push strategy is better:
 - for industrial products and/or complex new products
 - when distribution channels are short
 - when few print or electronic media are available
- ❖ A pull strategy is better:
 - for consumer goods products
 - when distribution channels are long
 - when sufficient print and electronic media are available to carry the marketing message

Marketing-mix: International Pricing

- ❖ International pricing is an important element in the marketing mix
- ❖ Three issues to consider:
 - **Price discrimination**
 - **Strategic pricing**
 - **Regulations that affect pricing decisions**

International Pricing: Price Discrimination

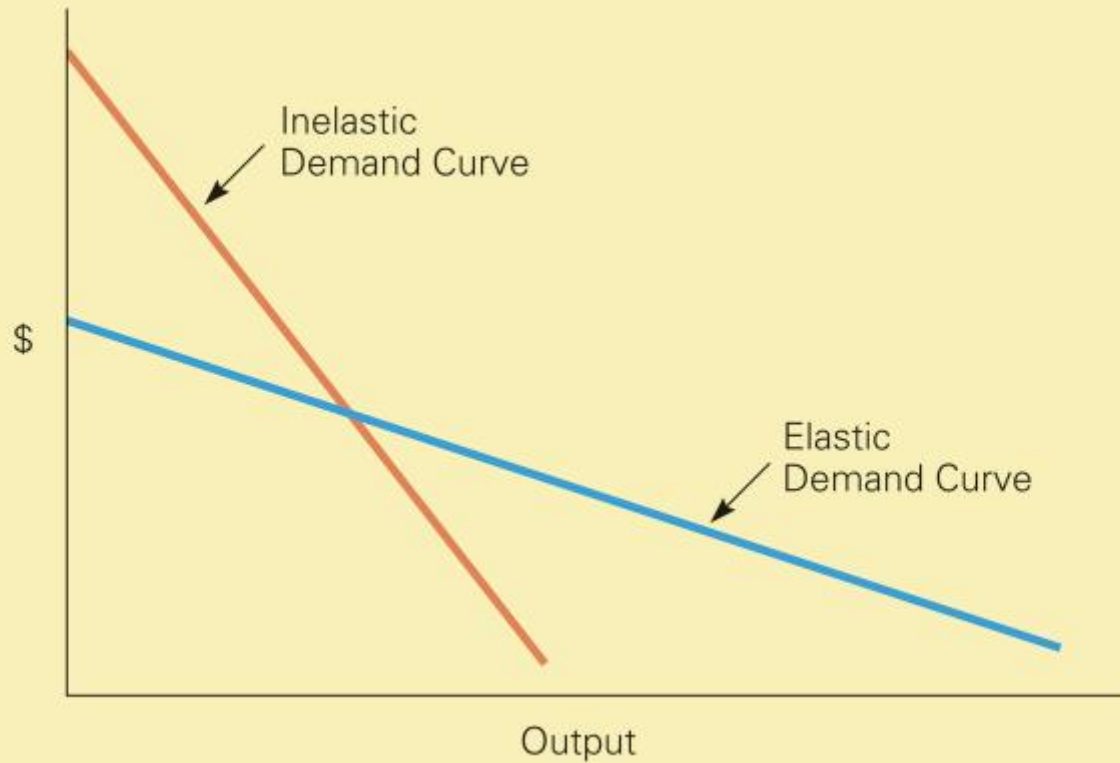
- ❖ **Price discrimination** occurs when firms charge consumers in different countries different prices for the same product
- ❖ For the same products, prices charged in foreign markets lower than those charged in domestic markets - - **DUMPING**.
- ❖ Firms using price discrimination hope it will boost profits
- ❖ For successful price discrimination (Dumping) to work:
 - **segment markets**: the firm must be able to keep national markets separate
 - **different price elasticities of demand** must exist in different countries

International Pricing: Price Discrimination

- ❖ The price elasticity of demand is a measure of the responsiveness of demand for a product to changes in price
 - When a small change in price produces a large change in demand, demand is **elastic**
 - When a large change in price produces only a small change in demand, demand is **inelastic**
 - **Income level and competitive conditions** are the two most important determinants of a country's elasticity of demand for a certain product (**Income elasticities of demand**– Giffen, Normal, Luxury Commodities)
 - Typically, price elasticities are greater in countries with lower income levels and larger numbers of competitors

International Pricing: Price Discrimination

Elastic and Inelastic Demand Curves



International Pricing: Strategic Pricing

❖ **Strategic pricing** has three aspects:

1. predatory pricing

2. multi-point pricing

3. “economies of scale” pricing

International Pricing: Strategic Pricing

1. Predatory Pricing

- ❖ It involves using the profit gained in one market to support aggressive pricing designed to drive competitors out in another market
- ❖ After the competitors have left, the firm will raise prices

International Pricing: Multi-point Pricing

2. Multi-point Pricing

- ❖ It refers to the fact that a firm's pricing strategy in one market may have an impact on a **rival's pricing strategy** in another market
- ❖ **Aggressive pricing** in one market may elicit a **competitive response** from a rival in another critical market
- ❖ For managers, it is important to centrally **monitor pricing decisions around the world**

International Pricing: Economies of Scale Pricing

3. Economies of Scale Pricing

- ❖ Firms that are further along their **average cost curve** have a cost advantage relative to firms further up the curve
- ❖ Firms pursuing an **economies of scale pricing** strategy price low worldwide in an attempt to build global sales volume as rapidly as possible, even if this means taking large losses initially
- ❖ The firm believes that in the future, when it has managed to move down its average cost curve, it will be making substantial profits and have a cost advantage over its less aggressive competitors

Regulatory Influences on International Pricing

- ❖ The use of either international price discrimination or strategic pricing may be limited by national or international regulations
- ❖ A firm's ability to set its own international pricing strategy may be limited by:
 1. antidumping regulations
 2. competition policy (National & International Competition Authorities)

Regulatory Influences on International Pricing: Anti-dumping

1. Antidumping Regulations

- ❖ **Dumping** occurs whenever a firm sells a product for a price that is less than the **unit cost** of producing it
- ❖ Antidumping rules set a floor under export prices and limit a firm's ability to pursue strategic pricing

Regulatory Influences on International Pricing: Competition Policy

2. Competition Policy

- ❖ Most industrialized nations have regulations designed to promote competition and restrict monopoly practices
- ❖ The regulations can be used to limit the prices that a firm can charge

New Product Development

- ❖ Today, competition is as much about technological innovation as anything else
- ❖ The pace of technological change is faster than ever
- ❖ Product life cycles are often very short
- ❖ New innovations can make existing products obsolete, but at the same time, open the door to a host of new opportunities
- ❖ Firms today need to make product innovation a priority
- ❖ This requires close links between R&D, marketing, and manufacturing

New Product Developments: The Location of R&D

❖ New product ideas come from the interactions of scientific research, demand conditions, and competitive conditions

The rate of new product development is greater in countries where:

- ❖ more money is spent on basic and applied research and development
- ❖ demand is strong
- ❖ consumers are affluent
- ❖ competition is intense

Integrating R&D, Marketing, and Production

- ❖ New product development has a high failure rate

- ❖ To reduce the chance of failure, new product development efforts should involve close coordination between R&D, marketing, and production

This integration will ensure that:

- ❖ customer needs drive product development
- ❖ new products are designed for ease of manufacture
- ❖ development costs are kept in check
- ❖ time to market is minimized