#### 9. Global Production, Outsourcing and Logistics



#### Judith Clifton José Manuel Alonso Marcos Fernández Gutiérrez

DEPARTMENT OF ECONOMICS

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# Main production issues for international firms

- Five interrelated questions:
  - 1. Where should <u>production activities be located</u>? (concentrated, dispersed and matched with country differences,...)
  - 2. What should be the <u>strategic role of foreign production sites</u>?
  - 3. To own foreign production activities or to outsource them?
  - 4. <u>How to manage the global supply chain</u>?
  - 5. Should the firm <u>manage global logistics</u>, or outsource the management to specialized enterprises?





# The location of production

- Firms may locate production so they are also:
  - Locally responsive
  - Able to respond quickly to shifts in customer demand
- Three factors:
  - 1. Country factors
  - 2. Technological factors
  - 3. Product factors





## **Country factors**

- Economic, political, and cultural conditions (comparative advantages)
- Firms may consider:
  - Factor costs
  - Economic, political and cultural conditions
  - Skilled labour and supporting industries
  - Trade barriers
  - Exchange rate changes
  - Transportation costs
  - Regulations affecting FDI



# **Technological factors**

1. The level of fixed costs and the minimum efficient scale

#### 2. The flexibility of the technology

- Mass customization (i.e., Toyota: reducing inventories and responding to diversity demands)
- Availability of flexible technology <u>facilitates concentrating production</u> in few locations





### **Product factors**

- 1. The **product's value-to-weight ratio** (transportation costs)
- 2. Whether the product serves **universal needs**





# Hidden costs of foreign production locations

- High employee turnover
- Poor workmanship
- Poor product quality
- Low productivity





# The strategic role of foreign factories

- <u>It can change over time</u>
  - (i.e., electronic components for telecommunications in Asia: from low cost labor to advanced design capabilities)

#### Improvements come from

- 1. Pressure to lower costs or respond to local markets
- 2. An increase in the <u>availability of advanced factors of production</u> (i.e., infrastructure or education)
- <u>Foreign factories as globally dispersed centers of excellence</u> (rather than just low-cost facilities)
  - Global learning





# **Outsourcing production**

- Make-or-buy decisions (i.e., components of a car)
- <u>In international markets, decisions involving</u>: political economy, exchange rates, factor costs, etc.





- Vertical integration: making component parts <u>in-house</u>. Advantages
  - 1. Costs
  - 2. Investments in highly specialized assets
  - 3. Protection of technology
  - 4. Accumulation of dynamic capabilities (i.e., Apple in product design)
  - 5. Scheduling of adjacent processes





- <u>Buying component parts</u> from independent suppliers. **Advantages** 
  - 1. Flexibility
  - 2. Costs. Avoiding:
    - Coordination and control of additional subunits
    - Lack of incentive associated with internal suppliers
    - Difficulties with setting appropriate transfer prices
  - 3. Orders from international customers





# To manage the global supply chain

- Logistics. Goal:
  - <u>Efficient global supply chain</u>
  - To establish a <u>competitive advantage</u>

High potential for increasing benefits (i.e. by reducing material costs)



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- Just-in-time (JIT) systems
  - <u>Cost savings</u>
  - Help to <u>detect the origin of defective parts</u>

But, no stock of inventory



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## Activity 1

PHILIPS IN CHINA

- Which were the main characteristics of the country at the time the company entered? Which advantages and disadvantages did this imply? Did this condition the strategy of the company?
- Which could be the problems of moving production excessively to China?
- How are the changes in China since the entry of the company affecting it? Which advantages and disadvantages appear?



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## Activity 2

GE MOVES MANUFACTURING

- "For decades General Electric has been at the forefront of the move to shift production offshore from high-cost locations [...] to cheaper locations".
- Is this still happening at present?
- Which economic reasons can explain the recent trends on this regard?
- Which advantages obtained GE from moving the production of its water heater to the U.S.?





# Activity 3

HEWLETT-PACKARD IN SINGAPORE

- Which comparative advantages saw Hewlett-Packard in Singapur in the 1960s-1970s? Were they based on valuable skills or on low wages?
- Which were HP's productive activities in Singapore in the 1970s? Did this change in the 1980s and 1990s? How?
- Which comparative advantages has HP now in Singapur? Should they move their activity to Vietnam, where wages are much lower?



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### Reference

• Hill, Charles W. L. (2014): *International Business. Competing in the global marketplace, 10<sup>th</sup> edition*. Emerald Group Publishing Limited.