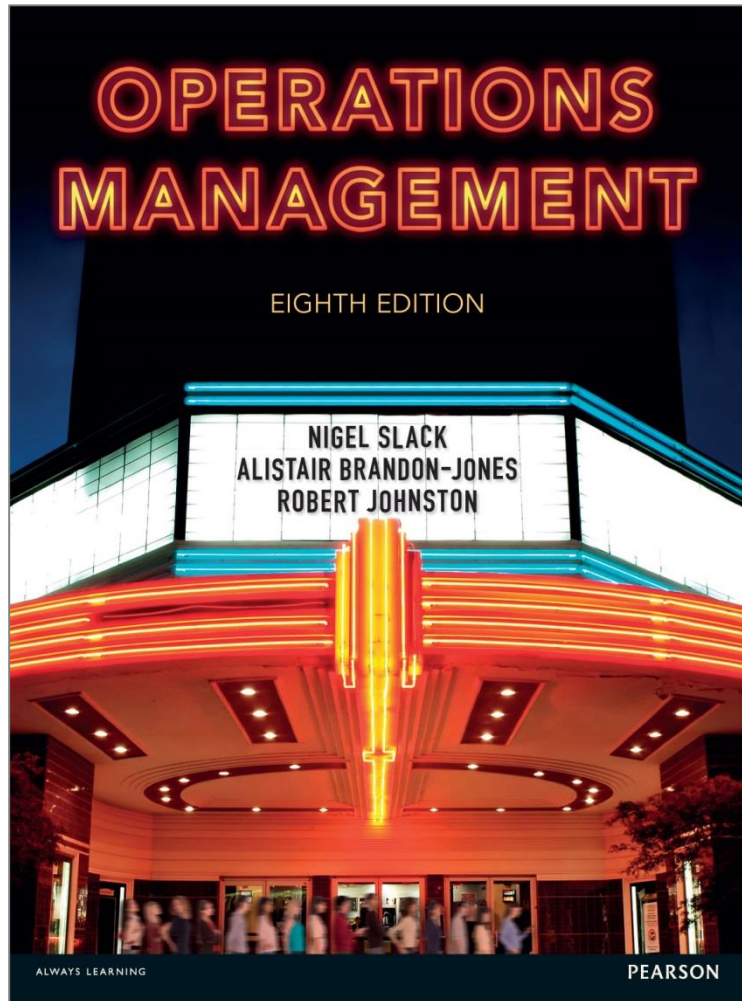


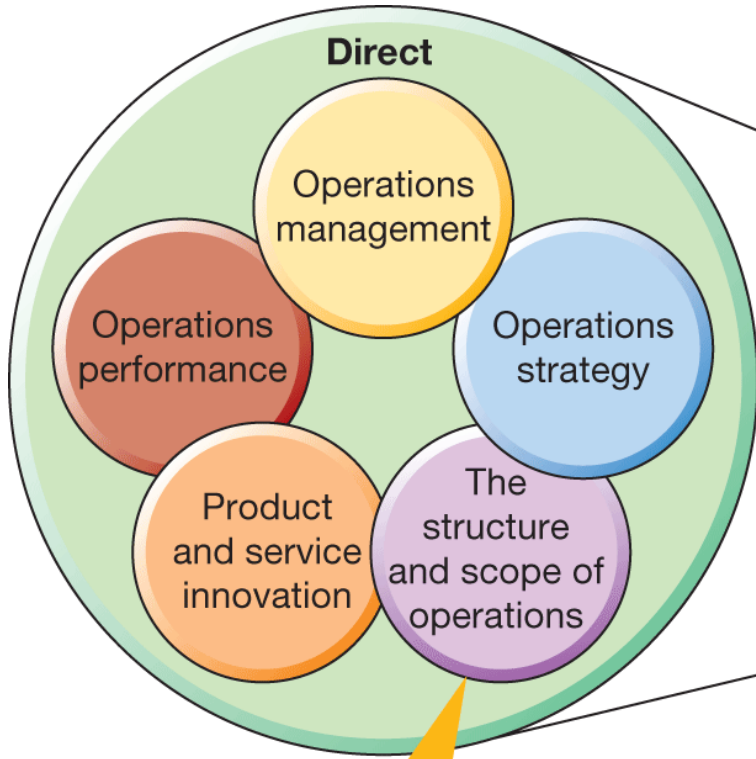
# Operations Management

8<sup>th</sup> edition

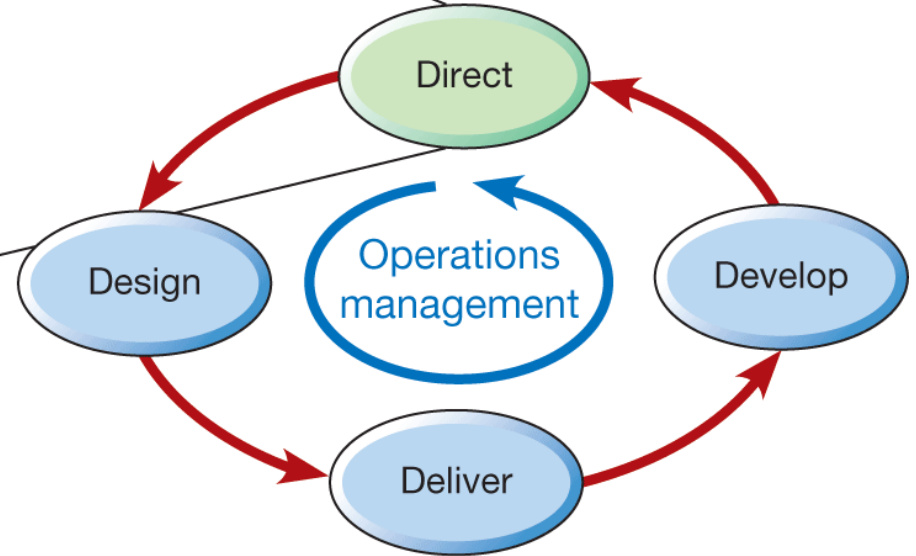


## Chapter 5

The Structure and  
Scope of Operations



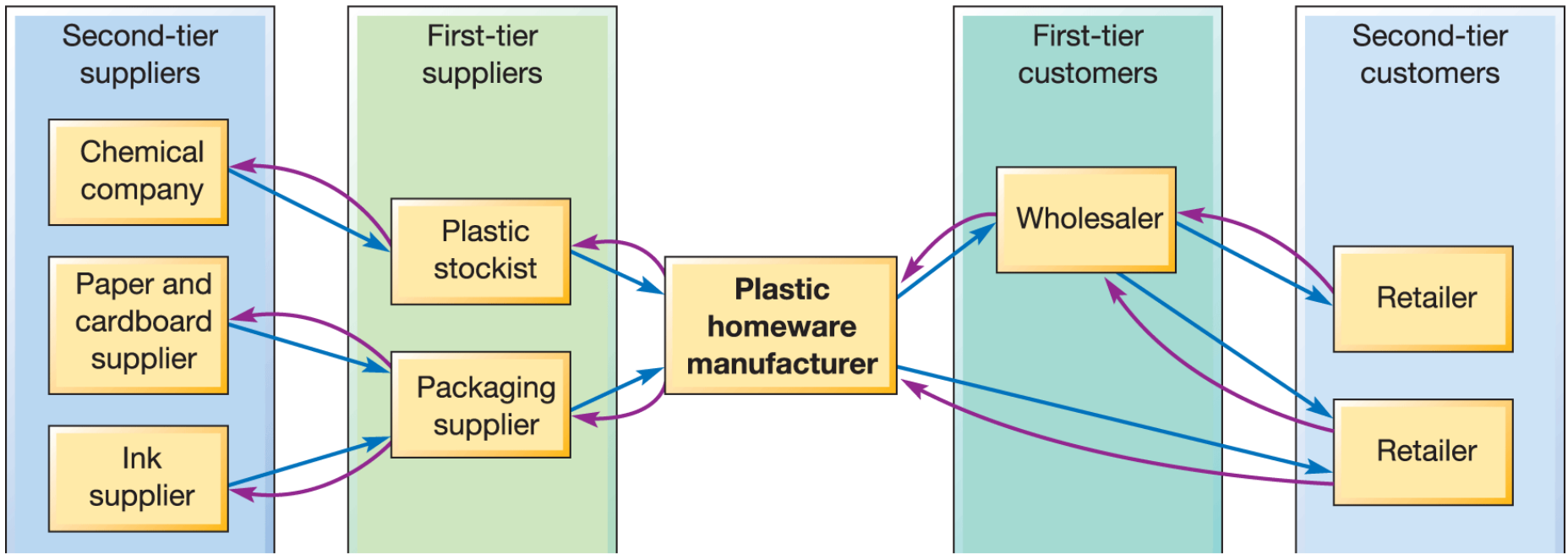
**Topic covered in this chapter**





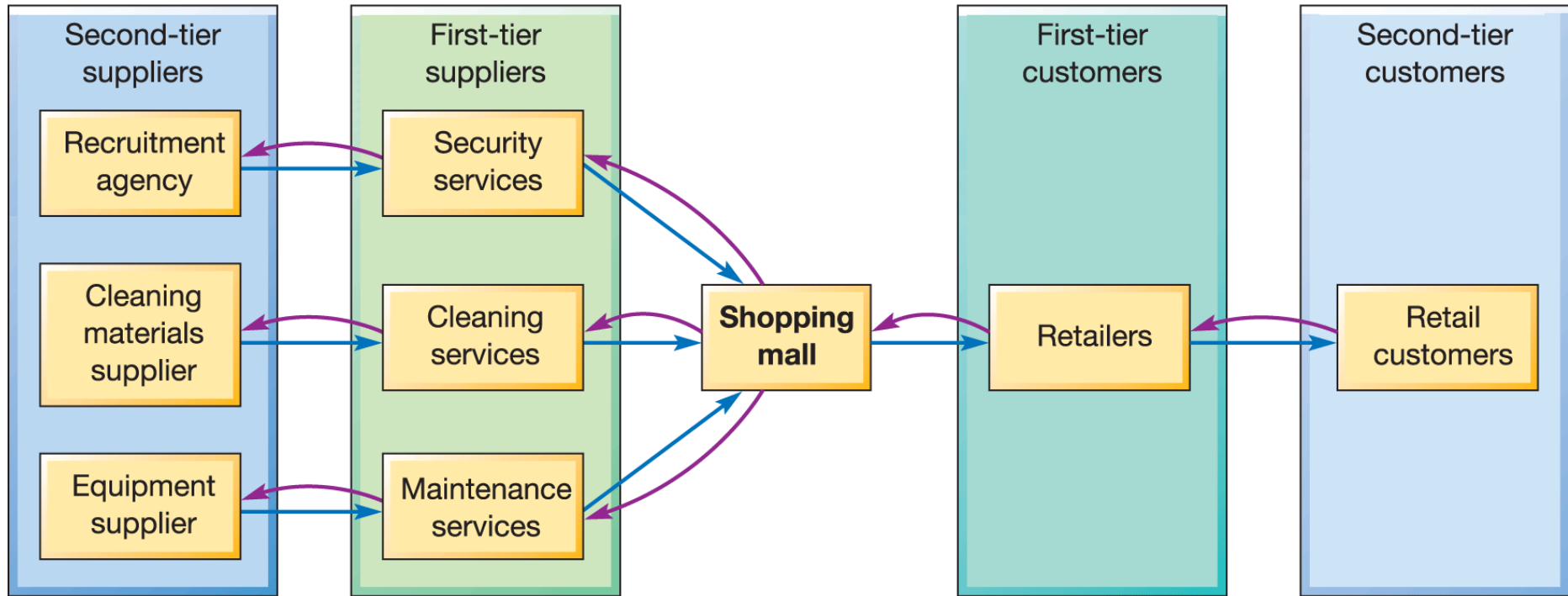
# Key questions



*In Chapter 5 – The structure and scope of operations – Slack et al. identify the following key questions...*

- What do we mean by the ‘structure’ and ‘scope’ of operations’ supply networks?
- What configuration should a supply network have?
- How much capacity should operations plan to have?
- Where should operations be located?
- How vertically integrated should an operation’s network be?
- How do operations decide what to do in-house and what to outsource?

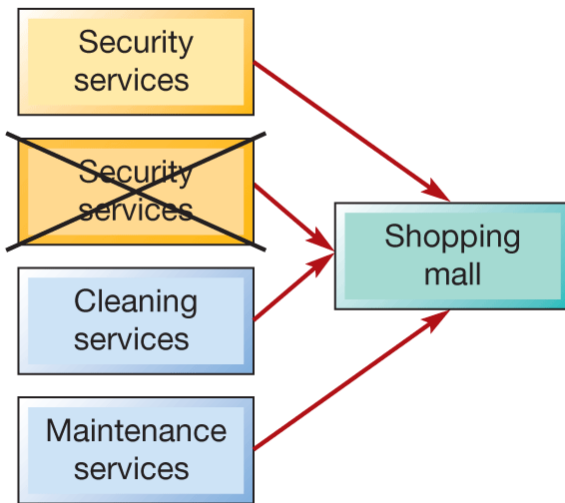


 Flow of service  
 Flow of information



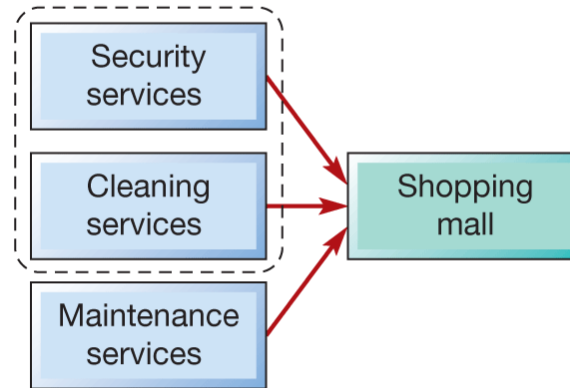
 Flow of service  
 Flow of information

**Option 1**  
Replace the security services supplier



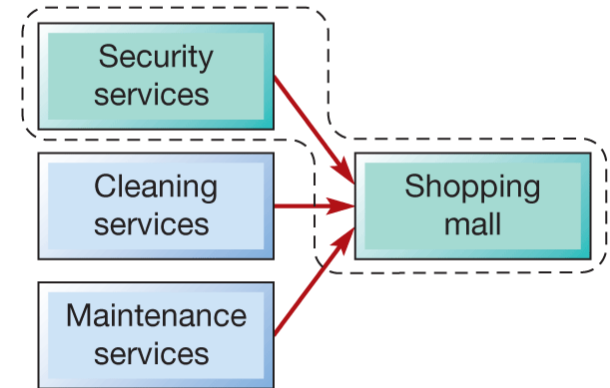
*Structure – same as before*  
*Scope – same as before*

**Option 2**  
Accept offer from cleaning services supplier to provide security services also

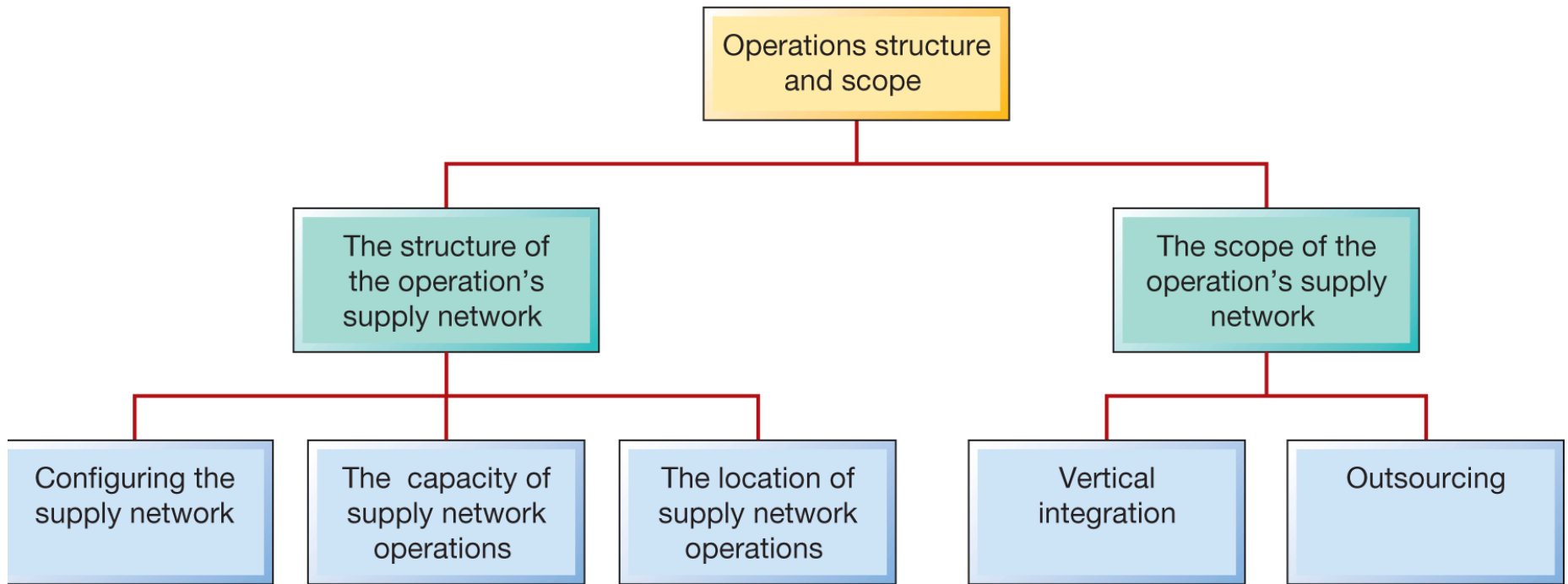


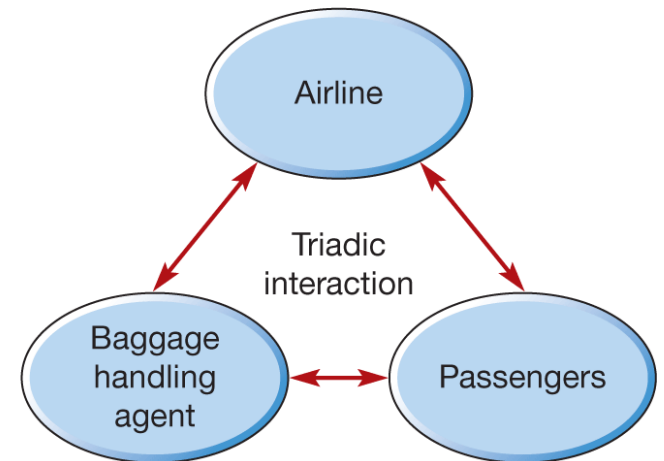
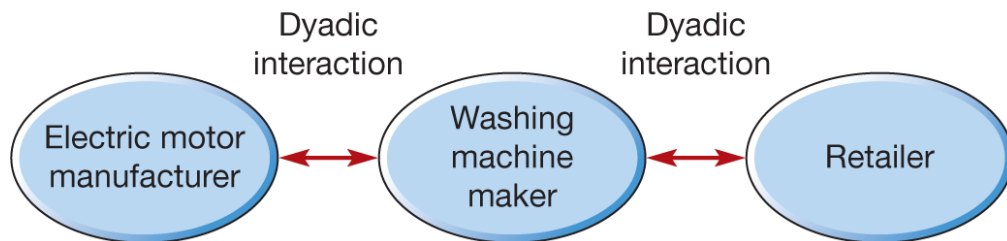
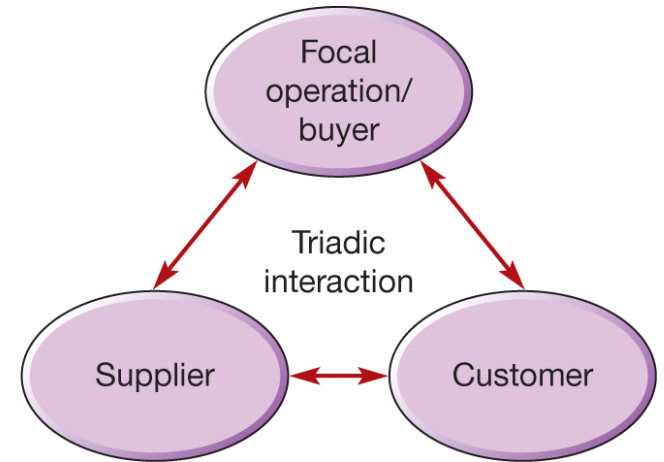
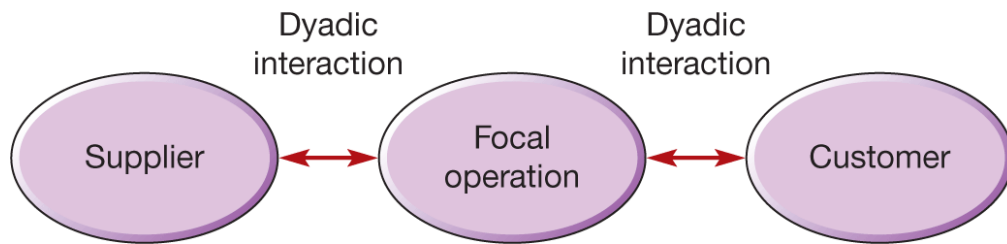
*Structure – changed*  
*Scope – same as before*

**Option 3**  
Mall to take on responsibility for providing its own security services



*Structure – changed*  
*Scope – changed*



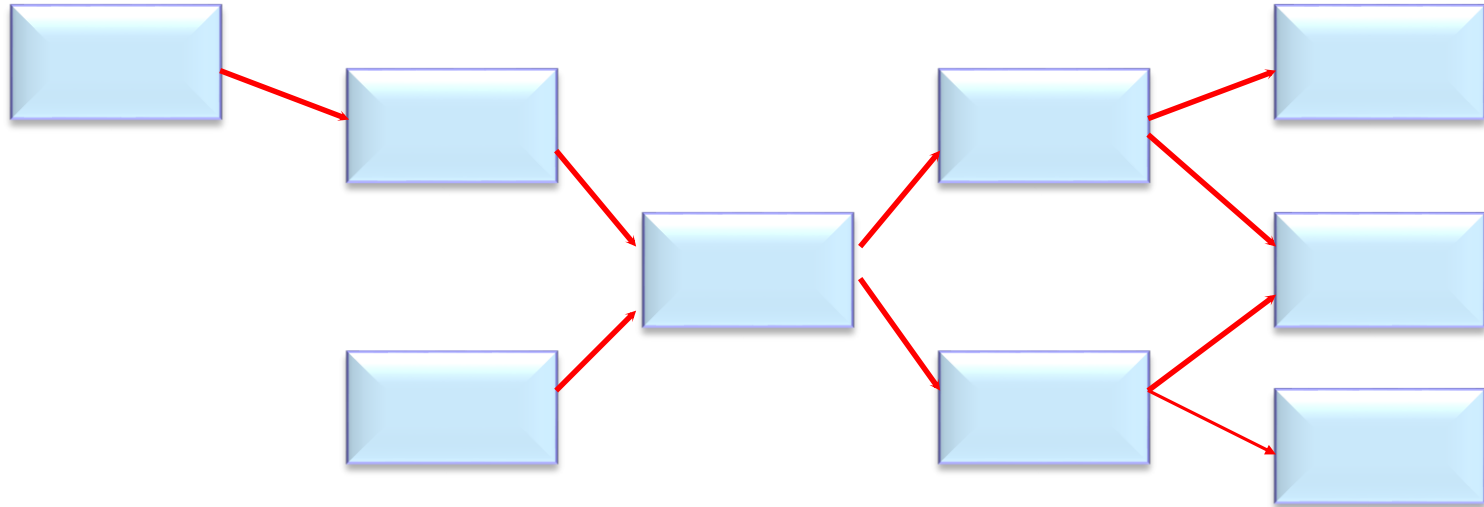


**(a) Dyadic relationships in a simple supply network and example**

**(b) Triadic relationship and example**



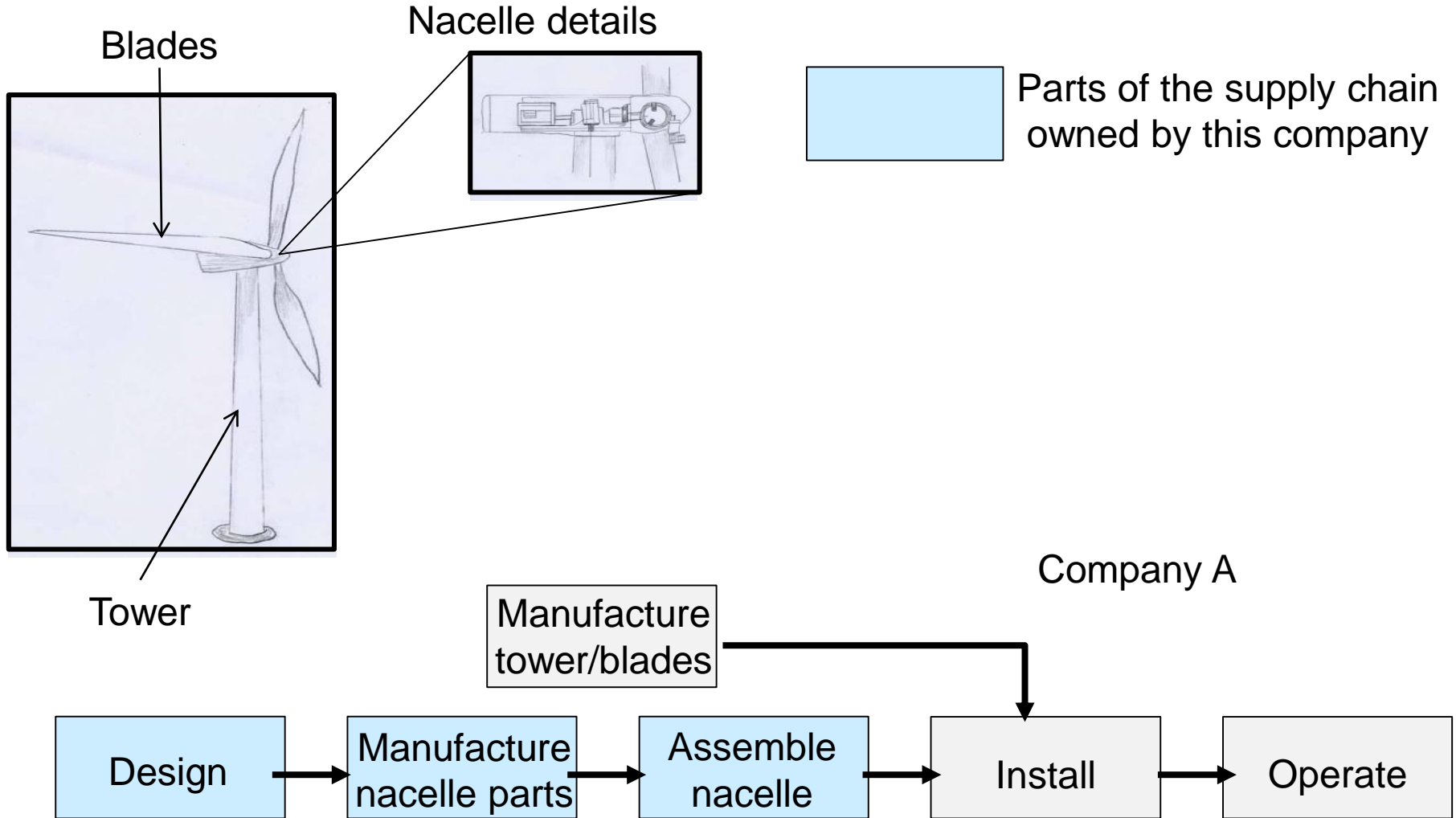
# Operations performance should be seen as a whole supply chain issue



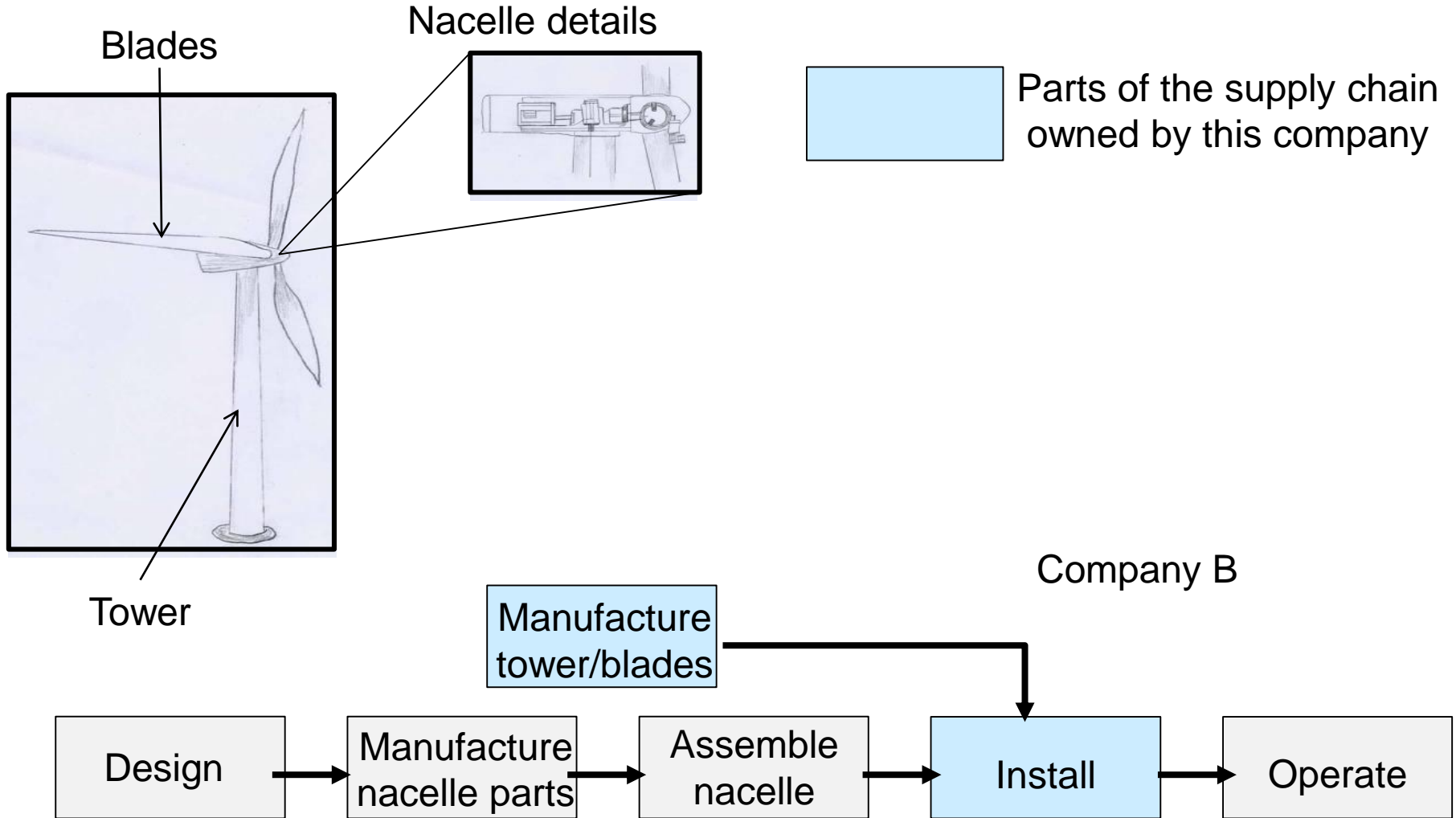
Benefits of looking at the whole supply chain include:

- It helps an understanding of competitiveness.
- It helps to identify the significant links in the network.
- It helps focus on long-term issues.

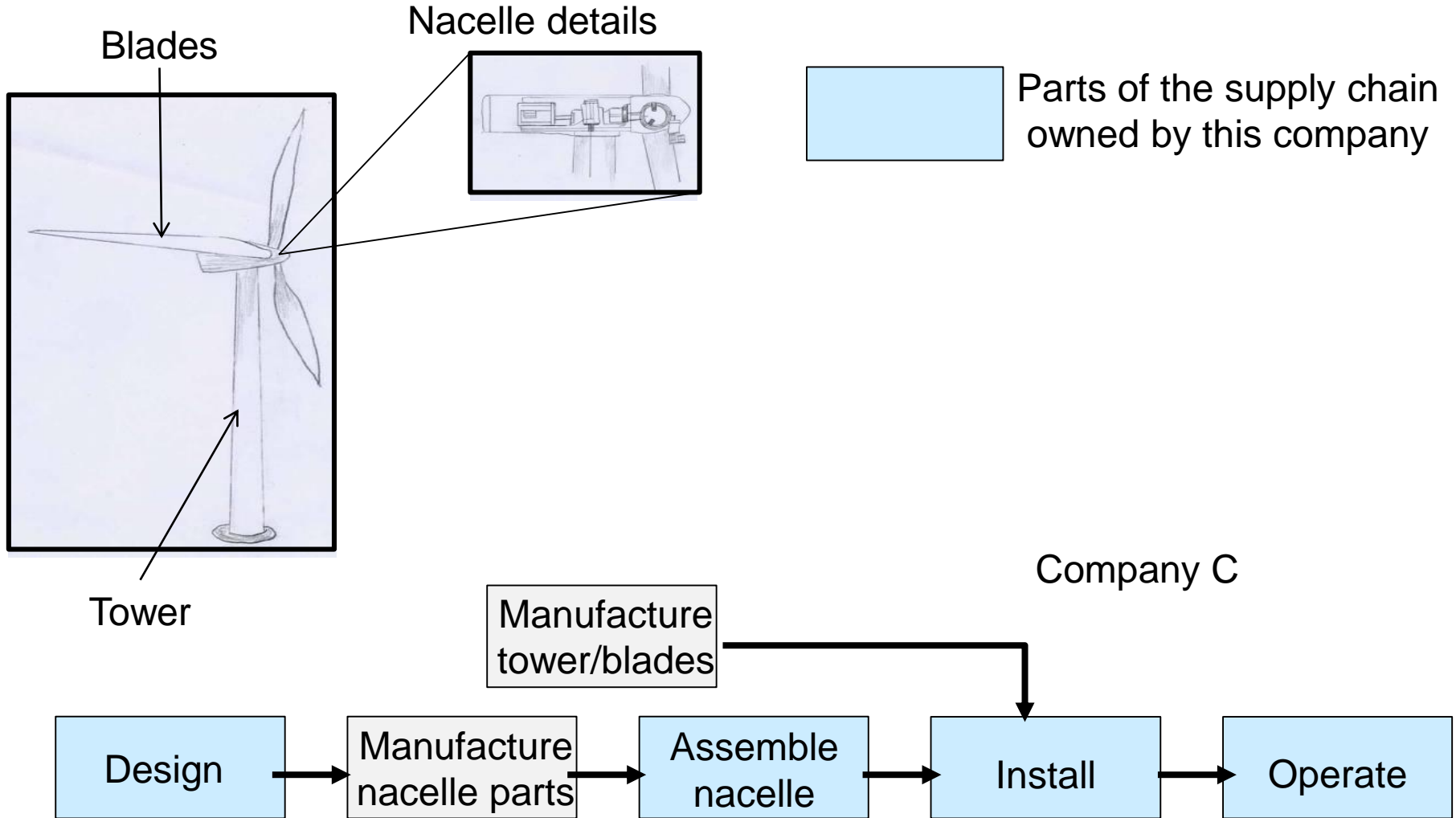
# One wind turbine company's vertical integration position (1 of 3)



# One wind turbine company's vertical integration position (2 of 3)



# One wind turbine company's vertical integration position (3 of 3)



# How outsourcing may affect performance objectives (1 of 3)

Performance objective	'Do it yourself' In-house supply	'Buy it in' Outsourced supply
Quality	The origins of any quality problems usually easier to trace in-house and improvement can be more immediate but can be some risk of complacency.	Supplier may have specialized knowledge and more experience, also may be motivated through market pressures, but communication more difficult.
Speed	Can mean synchronized schedules which speeds throughput of materials and information, but if the operation has external customers, internal customers may be low priority.	Speed of response can be built into the supply contract where commercial pressures will encourage good performance, but there may be significant transport/delivery delays.

# How outsourcing may affect performance objectives (2 of 3)

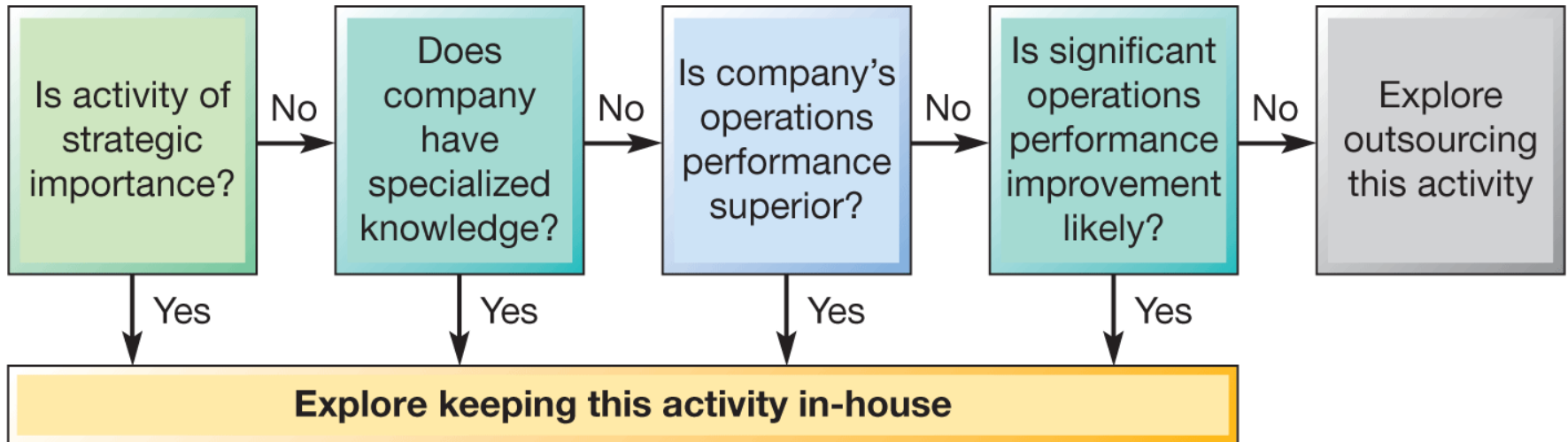
Performance objective	'Do it yourself' In-house supply	'Buy it in' Outsourced supply
Dependability	Easier communications can help dependability, but, if the operation also has external customers, internal customers may receive low priority.	Late delivery penalties in the supply contract can encourage good delivery performance, but organizational barriers may inhibit in communication.
Flexibility	Closeness to the real needs of a business can alert the in-house operation to required changes, but the ability to respond may be limited by the scale and scope of internal operations.	Outsource suppliers may be larger with wider capabilities than in-house suppliers and more ability to respond to changes, but may have to balance conflicting needs of different customers.

# How outsourcing may affect performance objectives (3 of 3)

Performance objective	'Do it yourself' In-house supply	'Buy it in' Outsourced supply
Cost	In-house operations do not have to make the margin required by outside suppliers so the business can capture the profits which would otherwise be given to the supplier, but relatively low volumes may mean that it is difficult to gain economies of scale or the benefits of process innovation.	Probably the main reason why outsourcing is so popular. Outsourced companies can achieve economies of scale and they are motivated to reduce their own costs because it directly impacts on their profits, but costs of communication and coordination with supplier need to be taken into account.

# Figure 5.11

## The decision logic of outsourcing





**Ownership of operations**

Company does not own the assets

Company owns the assets

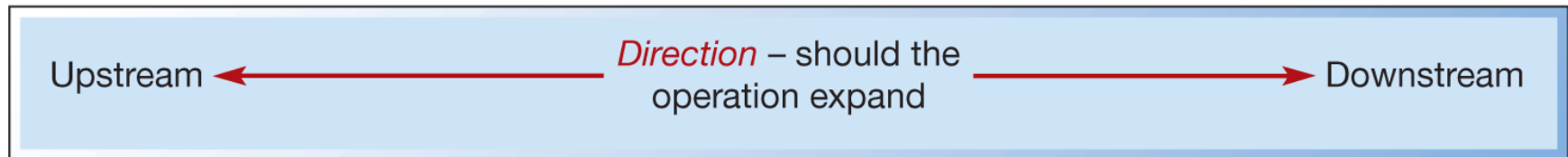
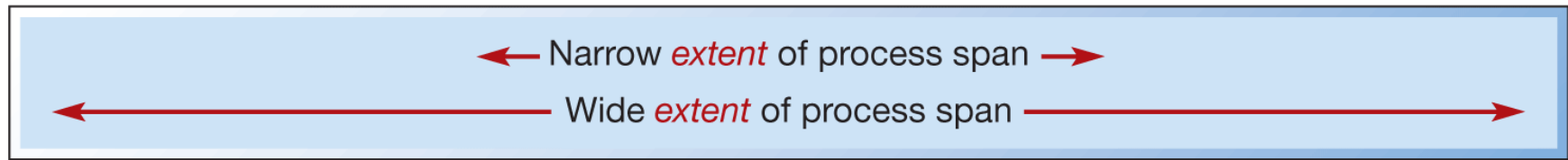
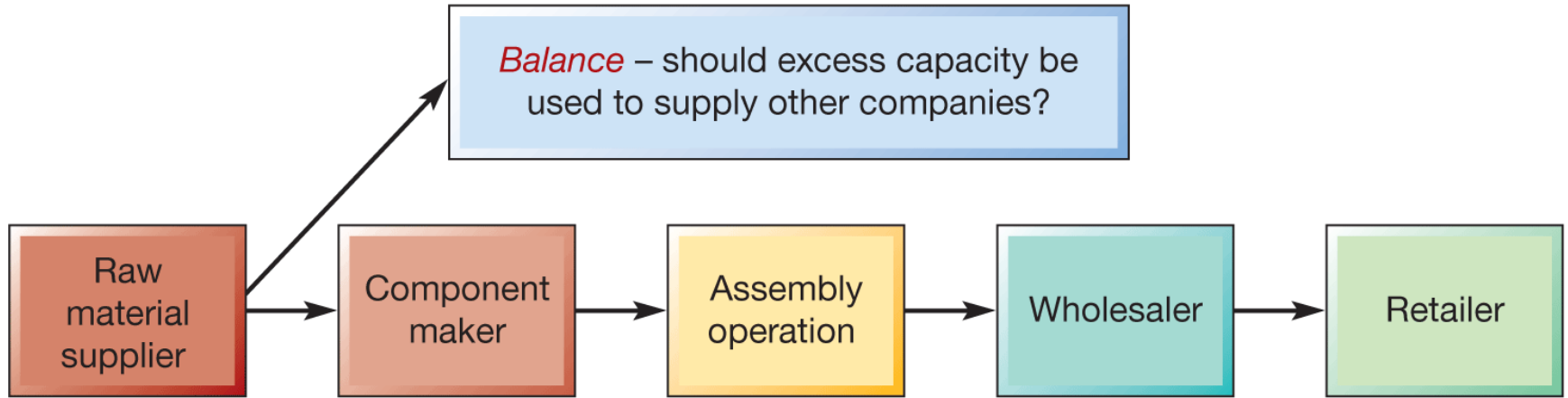
<p><b>Outsourcing</b> Domestic supplier delivers products and/or services</p>	<p><b>Offshore outsourcing</b> Overseas supplier delivers products and/or services</p>
<p><b>Domestic operations</b> Focal operation performs activities themselves</p>	<p><b>Offshore operations</b> Focal operation's overseas operation delivers products and/or services</p>

Within domestic markets

International markets

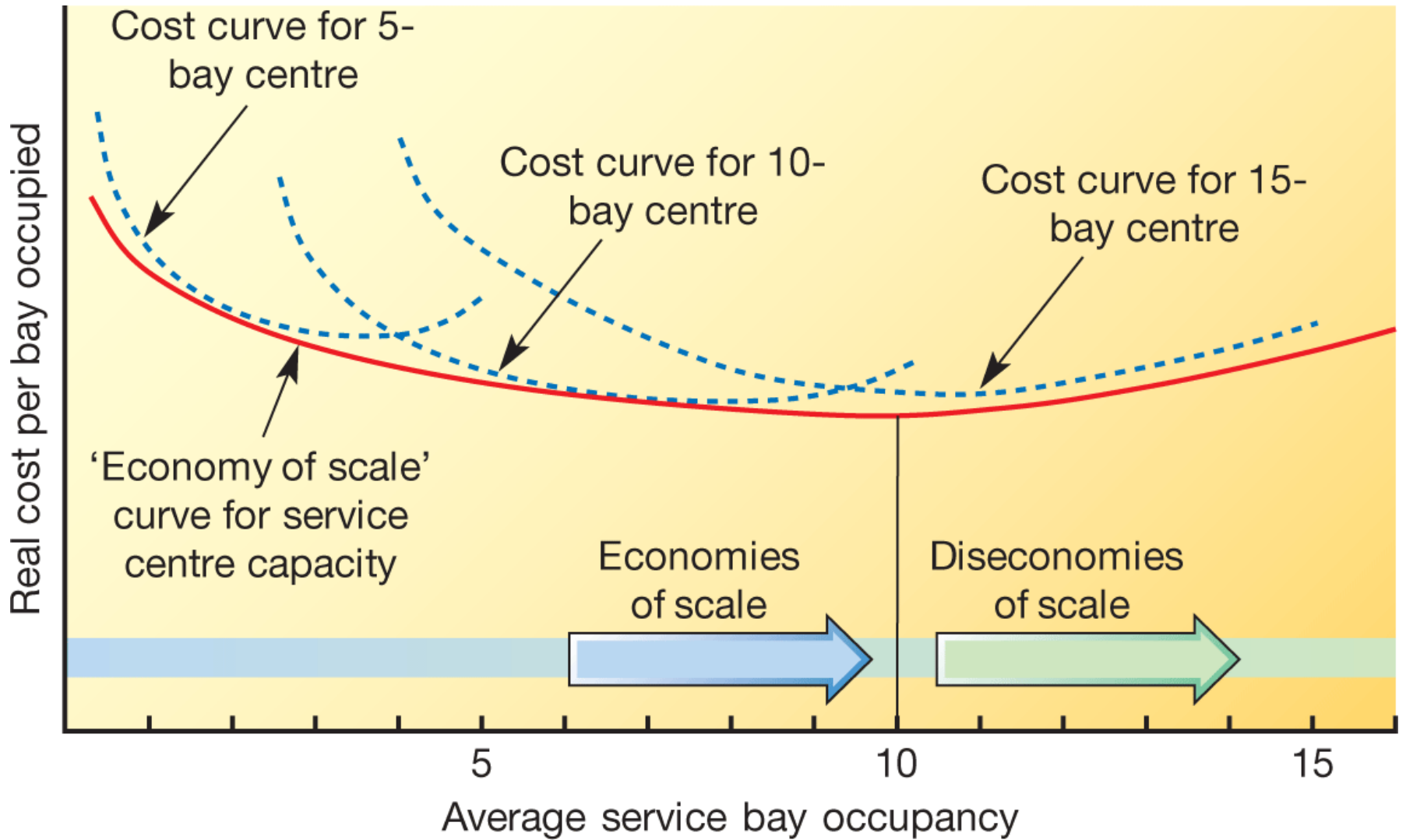
**Location of operations**

# The direction, extent and balance of an operation's vertical integration



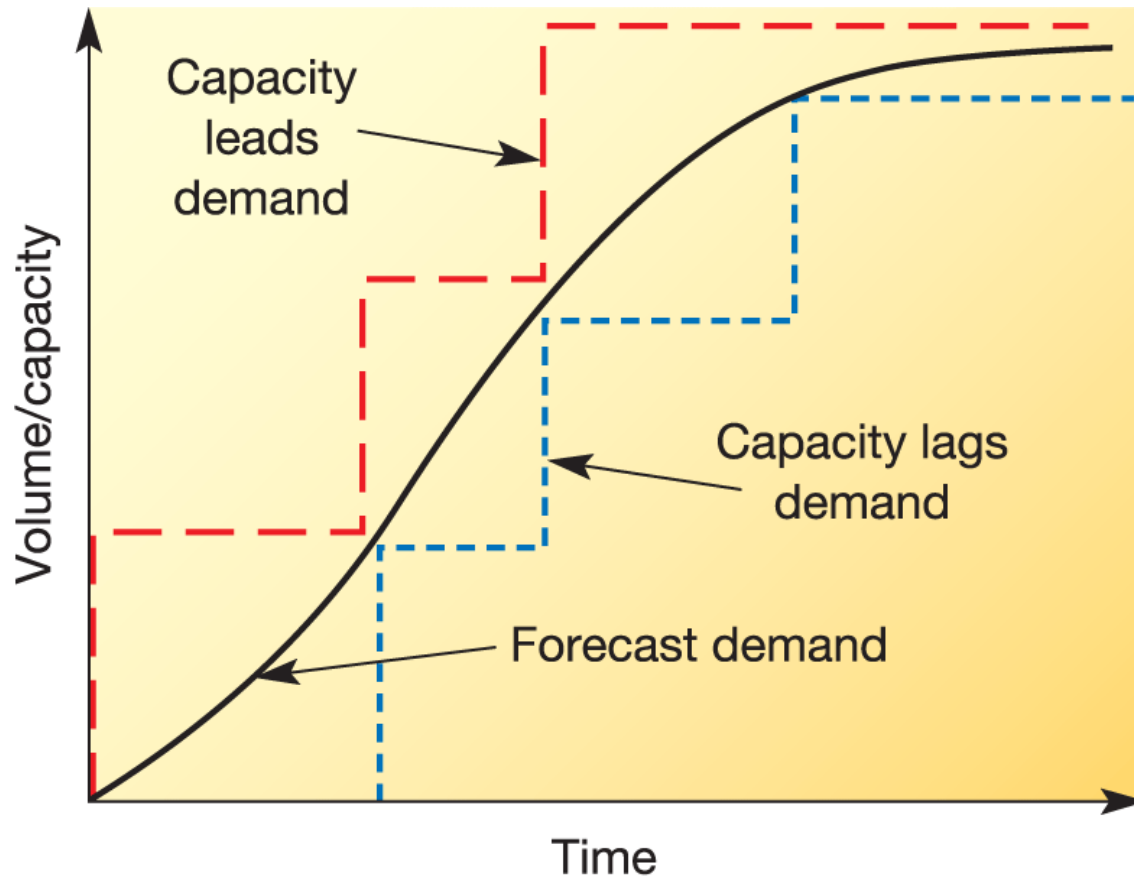
# The balance of capacity

- Capacity can either lead or lag demand.
- Inventory can be used to smooth out the peaks.
- Spare capacity can be used to supply other operations.
- The danger of this is that the original operation may receive a lower level of service.



# Figure 5.7

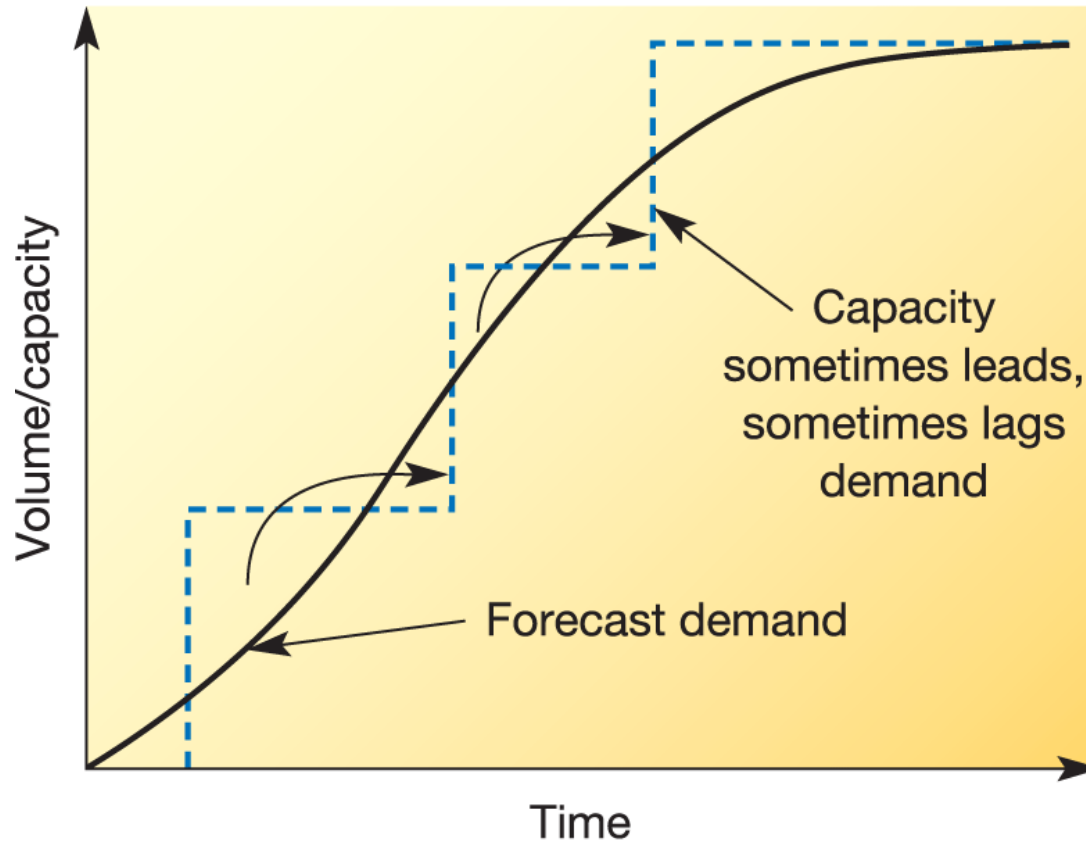
## (a) Capacity-leading and capacity-lagging strategies



(a)

## Figure 5.7

(b) Smoothing with inventories means using the excess capacity in one period to produce inventory that supplies the under-capacity period



(b)