



## Section 5.5

### Activity 5.5.1

1. The 'supply chain' is every business that comes into contact with a particular product from the point where it is manufactured to the point where it is sold.
2. Zara's supply chain is set out as:
  - Factories in Spain, Portugal, Morocco and Turkey
  - Distribution centre in Spain
  - Products sold through 1770 stores in 86 countries.
3. Two reasons why Zara's supply chain might give it a competitive advantage:
  - Its factories allow it to control the quality of its clothing
  - Its retailers allow it to control the way its clothing is sold.

### Activity 5.5.2

1. 'Buffer stock' is the minimum stocks that should be held to ensure that production can still take place should a delay in delivery occur or production rates increase.
2. a. Saiko received 700 000 units at the end of January.  
b. The lead time is one month.
3. Two factors that might determine the maximum stock level held by Saiko:
  - Capacity of storage facilities
  - Speed of order delivery time.
4. The advantages of using the just-in-case method of stock control include:
  - Stock of materials is available to meet an increase in demand
  - Stock is less likely to run out and interrupt production
  - Purchasing economies of scale
  - Stocks are available as a marketing opportunity.



The disadvantages might be:

- Opportunity cost of working capital tied up in stock
- Storage cost of stock
- Deteriorating quality of stock over time
- Stock storage space can be used for production.

## Activity 5.5.3

1. 'Capacity utilisation' is the proportion of maximum output capacity currently being achieved.
2. Factors that might account for falling rates of capacity utilisation in London hotels includes:
  - Rise in price of hotel rooms
  - Rise in the value of the pound makes London more expensive as a tourist destination
  - More hotels being built in London.
3. Possible consequences of rising capacity utilisation in Istanbul's hotels includes:
  - Increasing price of hotel rooms
  - Customers find it more difficult to get a room
  - Greater incentive for hotels to increase capacity.

## Activity 5.5.4

1. Capacity utilisation rates for Nassau in each of the three years:

	2012	2013	2014
Capacity utilisation rate	80%	74%	60%

2. Profits made by Nassau in each of the three years:

Sales revenue (\$m)	12	11.1	8.1
Variable costs	8	7.4	6.6
Fixed cost	3	3	3
Total cost	11	10.4	9.6
Net profit	1	0.7	-1.5

3. The relationship is that a fall in capacity utilisation rates leads to a fall in profits.
4. The advantages to Nassau of having a low capacity utilisation rate are:
  - Spare capacity to meet an increase in demand



- Capital is not worked too hard so it is less likely to break down
- No requirement to seek outside supply.

The disadvantages might be:

- Fixed costs per unit are higher
- Idle resources not generating output
- Under-utilised machinery does not work as efficiently.

## Activity 5.5.5

1. 'Labour productivity' is the ratio of output to labour input during production.

2. Labour productivity of the three businesses:

	Rapid Pizza	Pizza to Go	Pizza4U
Labour productivity	200	220	264

3. Rapid Pizza is the most efficient.

4. Reasons for the different rates of productivity for the three businesses might be:

- Motivation of workers
- Better quality capital
- More effective production systems.

5. Labour productivity might be important for the long-term performance of firms in the pizza industry because:

- Overall business productivity increases
- High productivity leads to lower unit costs
- Lower prices can be charged with lower unit costs
- Higher sales might be achieved through lower prices
- Higher profit margins can be achieved if unit costs fall by more than selling price
- Higher profit margins and greater sales increase total profits.



## Activity 5.5.6

1. Labour and capital productivity for the Westlife factory.

	2012	2013	2014
Labour productivity	2500	2292	2000
Capital productivity	5000	4583	4000

2. The trend in labour and capital productivity over the three years is downwards.

3. Two reasons for the fall in labour productivity might be:

- Less motivated workers
- Less efficient production systems.

4. Possible consequences of the fall in capital productivity include:

- Rise in fixed costs per unit
- Its jean prices rise
- Westlife is less competitive in the market.

5. Two methods Westlife could use to increase labour productivity might be:

- Change the financial and non-financial rewards workers receive to increase motivation
- Improve the quality of capital workers use through advances in technology.

## Activity 5.5.7

1. The direct costs of making product X and Y:

Product	X	Y
Direct labour costs per unit	\$5	\$7
Direct material costs per unit	\$4	\$12
Total direct cost per unit	\$9	\$19



2 & 3. The costs to make 500 units of product X and 1000 units of product Y:

Product	X	Y
Total direct cost	$\$9 \times 500 = \$4500$	$\$19 \times 1000 = \$19\,000$
Fixed Factory cost	\$2000	\$3000
Total cost	\$6500	\$22 000

4. Total cost to buy product X and product Y:

Product	X	Y
Cost to buy	$\$11 \times 500 = \$5\,500$	$\$24 \times 1000 = \$24\,000$

5. The business might consider the following factors when deciding whether to buy or make product X or product Y:

- Product X is cheaper to buy
- Product Y is cheaper to make
- How much control the business wants over the production of the product
- How productive capacity freed by buying the product might be used
- Financial implications of ceasing production, such as redundancy
- Reliability of the supplier of the components.

## Exam practice question

1. 'Capacity utilisation of 90%' means that 90% of the maximum output is currently being produced.
2. The difference between stock holding costs and costs of not holding enough stock include:
  - Stock holding costs – storage, insurance, factory space, deterioration of stock
  - Stock out costs – loss of sales, dissatisfied customers, interruption to production.
3. Criteria MFLEX would need to meet in order to use JIT stock management includes:
  - Short lead time from suppliers
  - Reliable suppliers
  - Effective information on demand for its products.
4. The advantages of MFLEX's decision to use JIT stock management:
  - Reduced stock holding costs – storage, insurance, deterioration of stock
  - More factory space can be used for production
  - Business is more responsive to consumer demand



- Increased motivation of staff as part of lean production.

The disadvantages might be:

- Production delays if MFLEX's suppliers do not deliver on time
- Loss of purchasing economies of scale
- MFLEX develops a reputation as an unreliable supplier
- Needs a well-trained and motivated labour force.

## Key concept question

Points to cover in considering the validity of the statement might include:

- Management techniques that have been used in different countries: TQM, cradle to cradle, Andon, kaizen, benchmarking
- The desire to achieve efficiency is an aim in organisations in many different countries
- Increased globalisation means organisations all over the world are exposed to management techniques from other parts of the world
- Cultural differences exist in countries, which may mean resistance to globalisation of management techniques
- How management tries to overcome cultural differences to allow globalised management techniques to work.