

Theme 2: Managing business activities

Chapter 37 and 38 – February, 2017

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

PRODUCTION

- ▶ *Production*: resources \rightarrow products

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ Production industries:

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ Production industries:
 - ▶ *primary* industry: agriculture

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ Production industries:
 - ▶ *primary* industry: agriculture
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PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ Production industries:
 - ▶ *primary* industry: agriculture
 - ▶ *secondary* industry: manufacturing
 - ▶ *tertiary* industry: services

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

JOB PRODUCTION

- ▶ *Job production:*

Advantages	Disadvantages
Quality is high because workers are skilled	High labour costs due to skilled workers
Workers are well motivated because work is varied	Production may be slow – long lead times
Products can be custom made	A wide range of specialist tools may be needed
Production is easy to organise	Generally an expensive method of production

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- ▶ method of production used by *starting-ups*

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PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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More use of machinery is made	If batches are small, costs will still be high
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FLOW PRODUCTION OR MASS PRODUCTION

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 - ▶ safer working environment

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ *capital productivity*:

$$\text{capital productivity} = \frac{\text{number of units produced}}{\text{amount of capital employed}} \quad (2)$$

PRODUCTION \neq PRODUCTIVITY

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- ▶ production \rightarrow *level* of output produced
- ▶ productivity \rightarrow *rate* of output produced

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

FACTORS INFLUENCING PRODUCTIVITY

- ▶ specialisation and the division of labour:

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ capital productivity: new technology → raise productivity (i.e., new technologies)

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

PRODUCTIVITY AND COMPETITIVENESS

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- ▶ international competitiveness also depends on other factors (*exchange rate*)

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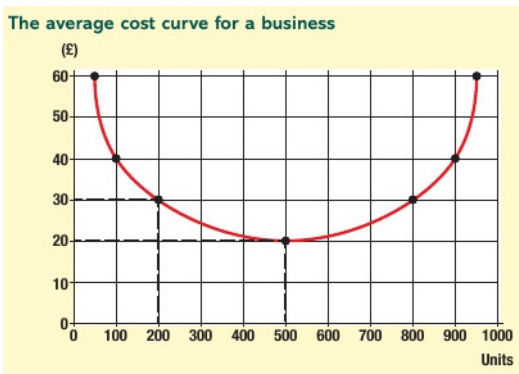
EFFICIENCY

- ▶ *efficiency*: making the best possible use of all business's resources

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ *efficiency*: making the best possible use of all business's resources
- ▶ indicator of efficiency: cost, average cost



PRODUCTION, PRODUCTIVITY AND EFFICIENCY

FACTORS INFLUENCING EFFICIENCY

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Downside: makes *customization difficult*

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 - ▶ cost savings → increased profit
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Downside: laying off → losing skills, experience, and knowledge. Lowers morale of staff.

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ standardisation: using uniform resources/activities or producing a uniform product.
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PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ investing in new technology: reduces inefficiency (new equipment)

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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 - ▶ workers come up with ideas to improve quality, reduce waste, ...
- ▶ Just-in-time production (JIT): minimize the amount of stock held by business

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

DISTINCTION BETWEEN LABOUR AND CAPITAL INTENSIVE PRODUCTION

- ▶ choice of combination between *labour intensive* and *capital intensive* techniques

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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 - ▶ *size of firm*: the larger the firm, the more capital intensive it is

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

DISTINCTION BETWEEN LABOUR AND CAPITAL INTENSIVE PRODUCTION

Capital intensive strategies
Benefits
<ul style="list-style-type: none">• Generally more cost-effective if large quantities are produced• Machinery is often more precise and consistent• Machinery can operate 24/7• Machinery is easier to manage than people
Drawbacks
<ul style="list-style-type: none">• Huge set-up costs• Huge delays and costs if machinery breaks down• Can be inflexible – much machinery is highly specialised• Often poses a threat to the workforce and could reduce morale
Labour intensive strategies
Benefits
<ul style="list-style-type: none">• Generally more flexible than capital – can be retrained for example• Cheaper for small-scale production• Cheaper for large-scale production in countries like China and India• People are creative and can therefore solve problems and make improvements
Drawbacks
<ul style="list-style-type: none">• People are more difficult to manage than machines. They have feelings and react• People can be unreliable. They may be sick or leave suddenly• People cannot work without breaks and holidays• People sometimes need to be motivated to improve performance

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

CASE STUDY: JAGUAR AND ROVER



PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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PRODUCTION, PRODUCTIVITY AND EFFICIENCY

KEY TERMS

- ▶ batch production:

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ batch production:
- ▶ capital intensive:

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ batch production:
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- ▶ capital productivity:

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ batch production:
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- ▶ capital productivity:
- ▶ cell production:

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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- ▶ batch production:
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- ▶ cell production:
- ▶ division of labour:

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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PRODUCTION, PRODUCTIVITY AND EFFICIENCY

KEY TERMS

- ▶ Kaizen:

PRODUCTION, PRODUCTIVITY AND EFFICIENCY

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CAPACITY UTILISATION

- ▶ *capacity utilisation*: use that business makes of its resources

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- ▶ businesses may decide not to be at full capacity (be *flexible*)

CAPACITY UTILISATION

MEASURING CAPACITY UTILISATION

- ▶ Formula for capacity utilisation

$$\text{capacity utilisation} = \frac{\text{current output}}{\text{maximum possible output}} \quad (3)$$

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- ▶ see *worked example*

CAPACITY UTILISATION

IMPLICATIONS OF UNDER-UTILISATION

- ▶ drawbacks: resources are not used *optimally* → unit costs are not minimised

Actual output (units)	120,000	160,000
Maximum possible output (units)	200,000	200,000
Capacity utilisation	60%	80%
Variable costs (£2 per unit)	£240,000	£320,000
Fixed costs	£50,000	£50,000
Total cost	£290,000	£370,000
Unit cost	£2.42	£2.31

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- ▶ benefits: business will be able to cope with sudden increases in production (able to absorb workloads)

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- ▶ benefits: average cost will be low, better prices and competitiveness

CAPACITY UTILISATION

WAYS OF IMPROVING CAPACITY UTILISATION

- ▶ reduce capacity:

CAPACITY UTILISATION

WAYS OF IMPROVING CAPACITY UTILISATION

- ▶ reduce capacity:
- ▶ increase sales:

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WAYS OF IMPROVING CAPACITY UTILISATION

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- ▶ redeployment:

CAPACITY UTILISATION

CASE STUDY: ENFIELD SHIPPING LTD.



CAPACITY UTILISATION

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CAPACITY UTILISATION

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