

Edexcel (B) Economics A-level
**Theme 2: The Wider Economic
Environment**

2.3 Productive Efficiency

2.3.3 Efficiency and competitiveness using lean production

Notes



Quality: control, assurance, Total Quality Management (TQM)

Lean production refers to the process of minimising waste during the stages of production. This is with the aim of reducing costs. Lean production essentially aims to eliminate waste, meet customer requirements, do things correctly the first time round, give power to the workers, and create a culture of continuous improvement (Kaizen).

The following strategies could be used in lean production:

Quality control:

This refers to the process of checking products to ensure they meet a minimum standard. The products might be inspected during and after the production process. Whilst this can be useful for firms with temporary and unskilled employees, it suggests the firm is aware of the potential for mistakes, but they have not done anything to solve this.

Quality assurance:

Quality assurance refers to the commitment, between the design, production and marketing sections of a production process, to collaborate. This is with the aim of improving the quality and reliability of the product.

This replaces the need to monitor output and check the quality of a finished product, since quality becomes a central part of the production process. Quality is checked at every production stage.

Total Quality Management (TQM):

TQM aims to create responsibility, in both the individual and collective stages of production, for quality. Every team involved in production is considered to have responsibility for quality. Each subsequent stage of production is considered to be a customer, who has to be satisfied by the preceding stage. It is the final customer who determines the quality of the product, and the customer has to be satisfied.



Continuous improvement (Kaizen)

Kaizen is a Japanese word which means 'continuous improvement'. It is an approach which involves introducing small alterations in a business with the aim of improving quality and efficiency. It places emphasis on getting things right the first time round.

Small improvements can contribute towards leaner production and they are unlikely to need major capital investment. These small changes are likely to have a larger impact on reducing waste and increasing productivity. For example, a 5 minute saving per day per worker by reorganising a desk might save several hundred hours over the course of a year, which results in significant increases in productivity

Kaizen also encourages employees to take responsibility and ownership of their work and its quality. This could enforce a strong team working culture and help motivate employees. Employees are encouraged to suggest ways to improve the work. Since the employees are equal, there are unlikely to be significant conflicts between these ideas.

Just in time (JIT) management of stock

JIT applies lean production to the management of stock. It reorders small quantities of stock, so less stock is held at any one time.

In other words, JIT ensures inputs to the production process only come as and when they are required, based upon consumer demand. This reduces the costs of holding stock and it builds a strong relationship between the firm and its suppliers.

JIT can become complicated and require efficient handling of stock in order to be effective. If complex computer systems are used to calculate quantities of stock, a great deal of precision needs to be taken in order to avoid significant mistakes being made.

Advantages	Disadvantages
The firm will be holding less stock, which costs the firm less to store, as well as reducing the cost of rent and insurance	The firm begins to rely heavily on suppliers. If the supplier cannot deliver the stock on time, it could delay the production process.
With less stock, it is less likely to perish or become obsolete. This is especially the case with perishable goods such as	The firm is not flexible enough to meet unexpected orders, since everything is made as it is needed, with no extras.



flowers, or technology, which changes rapidly.	
The firm spends less time checking production, since they focus on ensuring the work is done well in the first place	The firm cannot afford to make mistakes in the production, since the amount of stock held is kept to a minimum.
Since only as much stock as is needed is stored, the firm allocates less working capital to stock.	The firm might need complex stock systems, which could be computerised.

Competitive advantage from lean production

Some of the advantages of lean production include:

- Reduced costs, so the firm can reduce prices for consumers. It could increase sales for the firm. This can also allow the firm to spend more money on investment, innovation or marketing.
- Quality improves, so consumers are more satisfied. It could also make demand more inelastic if consumers become more loyal to the brand.
- Staff might feel more motivated, since they are more involved in the production process.

