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Lean production - Nestlé

Lean production, an approach developed in Japan, aims to reduce waste. Lean production focuses on minimising resources used in the production processes. Production should therefore aim to take place using the most efficient use of space, machinery, labour, materials and, crucially, be in the shortest time period. Using less time requires **time-based management** strategies. **Kaizen** is another idea developed in Japan. It supports lean production by introducing the idea of continuous improvement. Improving efficiency becomes a continuous process that is the responsibility of everyone involved in production. This helps empower the workforce to voice their opinions to make improvements.

Nestlé Waters used a lean production technique called **Value Stream Mapping (VSM).** VSM illustrates the flow of materials and information required to bring the finished product to the consumer. This can then be analysed to see where improvements can be made. Value can be added by reducing waste which in turn reduces production costs. Any activity which puts cost on a product without adding value is waste. Waste can happen at any part of the process. '**Muda**' is the Japanese term for waste. Nestlé Waters then carried out a 'waste hunting' exercise of the old factory looking at the seven area of Muda. This exercise established that waste was present in three main areas: production, inbound materials and outbound products. Key areas where waste was found included excess handling, waiting time and defects. For example, raw materials, packaging and finished goods were handled multiple times. Waiting issues included blockages, idle machinery and trucks being made to wait at loading bays.

Just-in Time (JIT) is another Japanese lean production technique. It focuses on timings during the production process. Both storing and waiting for materials can increase costs. Waiting for materials will waste employees' time and could also delay production. JIT involves ensuring materials arrive just as they are needed. Similarly for outputs, transport must arrive to take finished products away just in time, without any waiting or storage costs. JIT focuses on continuous improvement but only works as part of an overall lean strategy. It can improve the efficiency of processes. It can lead to a better return on investment through improving productivity. JIT also allows for fewer materials to be held at any one point which can reduce working capital needs as less finance is needed for stock, leading to better financial performance. JIT helps make big efficiency gains for Nestlé Waters. This requires excellent relationships with suppliers and distributors. Suppliers must deliver quality resources on time and distributors must ensure bottles are picked up immediately when they are ready. This aspect required a lot of planning but has delivered great benefits.

Nestlé Waters uses lean production techniques to bring benefits other than gains to efficiency and quality. It also helps to create social and environmental benefits. As part of Nestlé Waters' Creating Shared Value it has worked with the local community on projects including its on-the-go recycling programme and Project WET.

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Questions

1. What is lean production?

2. List the efficiency concepts that underpin lean production?

3. Explain how Kaizen might benefit Nestlé.

4. Analyse the benefits of using JIT to organisations like Nestlé.

Task

Make a plan of your average weekday. Can you identify any areas where you waste either time or resources? Using lean principles, work out how you could eliminate waste in your average day. How much time/money have you saved, if any?

What have you learned?

Ready, steady, GO...write down as many things as you can think of about lean production in 60 seconds.