

IB Business Management – Operations Management

5.3D: Lean Production and Quality Management Activity



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5.3 LEAN PRODUCTION AND QUALITY MANAGEMENT: ACTIVITY D

Read the case study information below and answer the questions that follow.

WIPING OUT DEFECTS AT WHEELER'S



Wheeler's manufactures pumps, cables, controls and drums used by washing machine producers. The company is a major supplier to most of the leading firms in the industry. The firm buys in a huge range of materials and components to make up the products it sells to the washing machine makers. Wheeler's makes over 200 different items. Today's consumers have high expectations for their new washing machines. They look for value for money and reliability.

Manufacturers expect suppliers like Wheeler's to turn out parts to a high quality at the lowest possible cost. To satisfy these demands and maintain an edge over cheaper foreign imports, Wheeler's follows a strict quality assurance system. It has been awarded ISO 9000 – a certificate now demanded by many of its customers. There is a world of

difference in setting targets for zero defects and low costs and actually achieving them. The growing demand for Wheeler's products is due in no small part to its reputation for quality, which is based on workers checking their own work using statistical control charts and recording the results of quality control checks at regular intervals. Wheeler's operations manager believes that the company's success depends on three key operations management features:

- The lean production system has made 'just in time' a priority. They now produce what is wanted when it is wanted. This requires Wheeler's own suppliers to be reliable and to

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be involved in the design and quality of each component so that it is perfect for the task it has to perform.

- A well-trained, multi-skilled and flexible workforce. Workers have to be prepared to operate different machines and produce different items. They work in cells or teams of between six and ten. Each cell is empowered to implement its own quality improvements established through regular Kaizen-type meetings. The workers have been successful in achieving very high productivity levels. Staff turnover is low.
- A quality assurance system that puts the emphasis on 'prevention not detection'. Employees share responsibility for making defect-free products. For example, the team making electrical switches checks the quality of output at each stage. They will not pass any item on to the final assembly and packing stage – their 'internal customers' – unless it is defect free. This approach helped the company gain the ISO 9000 award.

Source: www.BusinessManagementIB.com

QUESTIONS: 24 MARKS, 42 MINUTES

1. Define the following terms:

- ISO 9000
- Kaizen groups
- Quality assurance
- Total quality management
- Zero defects

[10 marks]

2. Identify the **two** key features of lean production.

[2 marks]

3. An objective of the company is to achieve 'quality output at low costs'. Evaluate the importance of the three factors listed in the case study in helping achieve this objective.

[12 marks]