

5.5 Production planning



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5.5 PRODUCTION PLANNING: ASSESSMENT

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

MFLEX TO EXPAND OPERATIONS IN MALAYSIA



With actual output projecting to reach 12.2 million circuit boards in a production facility having a productive capacity of 13 million, MFLEX, the leading global maker of high-quality advanced circuit boards to the electronics industry, has leased a 35,000 square metre factory in Johor Darul Takzim, Malaysia. It has purchased new manufacturing equipment for the plant and employed 125 workers, which will mean a considerable increase in capacity and scale of operation for the company.

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The factory will allow the business to respond more rapidly and flexibly to just-in-time demands from its customers. The company will also expect its suppliers to be able to deliver materials and components on a JIT basis and it has signed exclusive deals with certain suppliers and is connected to them by computer link to speed up ordering.

Estimated productivity in the new factory should easily surpass the current production facility.

Important figures for the new factory include:

- With total output of 60 million circuit boards being manufactured with future orders pricing these at \$1.55
- Total input has been costed – variable costs of 0.25 and fixed costs of an eye-watering \$55 million

Rapid inflation in Malaysia, as in other countries, is forcing some businesses to re-think their use of JIT manufacturing systems. With rising costs of industrial materials and components and much higher charges for transport, some operations managers are looking again at whether the 'no buffer stock' policy of the JIT method with frequent small orders being delivered is costing more than a large stock-order policy.

25 MARKS, 45 MINUTES

1. Define the following terms:
 - a. Increase in capacity
 - b. Increase in scale of operation
 - c. No buffer stock

[4 marks]
2. Distinguish between Just in Time (JIT) and Just in Case (JIC) stock control methods.

[5 marks]
3. Calculate for MLEX its:
 - a. Current capacity utilisation rate
 - b. Projected productivity rate at the new facility
 - c. Cost to make (CTM) the circuit boards

[6 marks]
4. Discuss MLEX's decision to move production to the new factory and implement JIT stock management.

[10 marks]