

Strategic logistics planning and inventory management strategies

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Lecture 14. Production Planning and Scheduling in Repetitive Situations: Just-in-Time

Introduction: Just-in-Time (JIT) is a production planning and scheduling system that focuses on producing only what is needed, when it is needed. It is an effective method for managing inventory and reducing waste in repetitive situations.

Section 1: What is Just-in-Time (JIT)

JIT is a production and inventory control system that emphasizes producing only what is needed, when it is needed.

The goal of JIT is to minimize inventory levels, reduce waste, and improve efficiency by aligning production with customer demand.

JIT relies on close collaboration between suppliers and customers, as well as effective communication and coordination between different departments within a company.

Section 2: Advantages of JIT

JIT can help companies reduce inventory levels and minimize waste, as they only produce what is needed.

By aligning production with customer demand, JIT can help improve customer satisfaction and reduce the risk of stockouts.

JIT can also help improve efficiency, as companies can better allocate resources and reduce the time and cost associated with storing and managing excess inventory.

Section 3: Challenges and Considerations for Implementing JIT

Implementing JIT requires a high degree of collaboration and communication between suppliers and customers, as well as between different departments within a company.

JIT can be challenging for companies that have highly variable demand, as it requires accurate forecasting and a tight alignment between production and customer demand.

Companies must also be prepared to invest in the infrastructure and technology needed to support JIT, such as an effective supply chain management system.

Questions:

1. What is Just-in-Time (JIT) and what is its purpose?
2. What are some of the key advantages of using JIT in production planning and scheduling?
3. What are some of the challenges and considerations associated with implementing JIT?
4. How does JIT compare to other production planning and scheduling methods, such as MRP or ERP?