



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35.



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Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.

DEPARTMENT OF AUTOMOBILE ENGINEERING

COURSE NAME : 19AUZ405 – LEAN MANUFACTURING

IV YEAR / VII SEMESTER

Topic –JIT



JIT?

“A philosophy of manufacturing based on planned elimination of waste and continuous improvement of productivity”



Bottlenecks in implementing JIT in an Industry

JIT improvement won't do any good.

Its sounds like a good thing but we still don't want to do it

Look good on paper but....

Costs are already as low as that can possibly get

But we already been doing things that way

We can't lower costs any more without lowering quality

Everything is going just fine now ,**Why** change it?

That's a lousy idea! We already tried that 20 years ago

Look we understand this stuff better than anybody(so don't tell us what to do)



History of JIT

- ❖ Evolved in Japan after World War II, as a result of their diminishing market share in the auto industry.
- ❖ Toyota Motor Company- first to implement fully functioning and successful JIT system, in 1970's.
- ❖ Japanese Manufacturers looked for a way to gain the most efficient use of limited resources. They worked on "optimal cost/quality relationship."



JUST-IN-TIME PHILOSOPHY

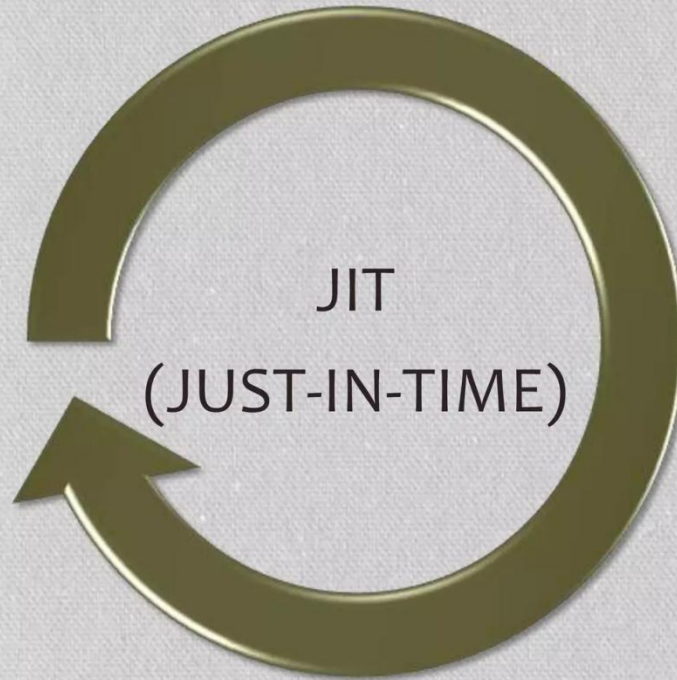
The philosophy of JIT can be traced back to Henry Ford, but formalized JIT originated in Japan as the Toyota Production System. W. Edwards Deming's lesson of variability reduction was a huge influence.

JIT is a long-term approach to process improvement. It uses timeliness as a lever to lower costs, improve quality and improve responsiveness. However, JIT requires enormous commitment. It took Toyota more than 25 years to get right!

The focus of JIT is to improve the system of production by eliminating all forms of waste.



JIT FUNCTIONS



- ZERO INVENTORY
- ZERO LEAD TIME
- ZERO FAILURE



- ❖ Eliminates waste .
- ❖ Achieves streamlined production .
- ❖ Eliminate disruptions in production ... caused by poor quality, schedule changes, late deliveries.
- ❖ Makes the manufacturing delivery system flexible by allowing it to handle a variety of products and changes in the level of output.
- ❖ Reduces setup and delivery times .



THE EIGHT TYPES OF WASTE

Waste	Definition
1. Overproduction	Manufacturing an item before it is needed.
2. Inappropriate Processing	Using expensive high precision equipment when simpler machines would suffice.
3. Waiting	Wasteful time incurred when product is not being moved or processed.
4. Transportation	Excessive movement and material handling of product between processes.
5. Motion	Unnecessary effort related to the ergonomics of bending, stretching, reaching, lifting, and walking.
6. Inventory	Excess inventory hides problems on the shop floor, consumes space, increases lead times, and inhibits communication.
7. Defects	Quality defects result in rework and scrap, and add wasteful costs to the system in the form of lost capacity, rescheduling effort, increased inspection, and loss of customer good will.
8. Underutilization of Employees	Failure of the firm to learn from and capitalize on its employees' knowledge and creativity impedes long term efforts to eliminate waste.



Thank You !