CRITIQUE OF THE GOAL

Operations Management I

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01 What did the plant look like at the beginning of the book?

At the beginning, because the management and organization of this plant are backward, the plant's profitability is worrisome.

Some improper operation examples

- Workshop process and procedures of low efficiencies like Fool's errands
- The goods of low quality are too much
- Redundant stock and inventory
- The way to production is releasing material continuously
- The way to measure cost and efficiency is just locally optimal
- Manual work of local process are too high like loading and discharge
- The economic situation of the plant is financial loss

02 What did the plant look like at the end of the book?

At the end, this plant adjusted operation strategy, which made every process of this factory is so efficient, fast, and to be profitable

Here's what this factory looks like after it's improved

- The workshop introduced new and highly efficient priority operation system
- Product quality is significantly improved
- Less stock and inventory
- The way to production is releasing material using capacity constraint resources(CCR)
- Measurements: Marketing money (Overall-Viewpoint)
- The plant introduced great system to improve the efficiency of loading and discharge

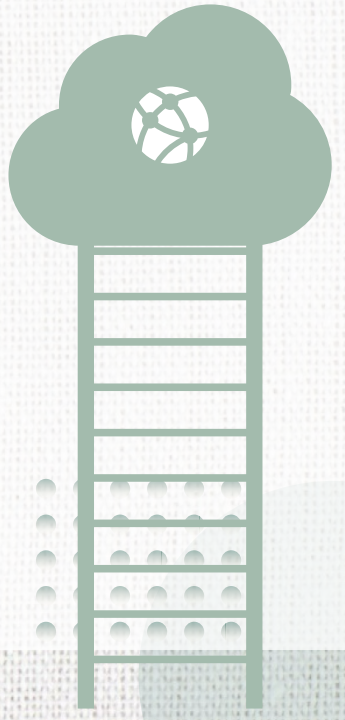
03 What measures were driving decisions at the beginning of the book?

The driving decision measures：

Cost of products, Efficiencies and Production

How did the use of those measures lead to poor performance?

- These measures just keep busy to release more materials,
- These measures increase inventoried which will increase the cost at the same time
- In addition, they also added carrying cost of inventory



04 What performance measure concepts did Jonah suggest?

Three performance Measurements:

#1 Throughput

Money that comes in and through sales the ratio to generate money of the system

#2 Inventory

Money in this system at present or the money that the plant or system will purchase things

#3 Operational expense

Money pay out to make throughput happen

How are those concepts useful?

Reducing both Operational expense and Inventory, as the same time, increase Throughput.

05

How does The Goal define a bottleneck?

Bottleneck is that resource capacity is less than or equal to the demand allocated by the market

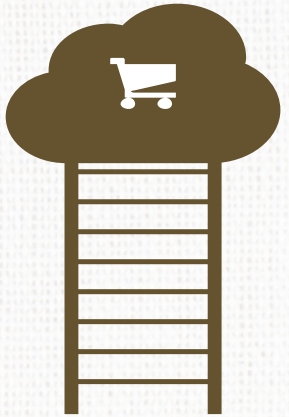
Different from what we defined because we defined bottleneck as the resource/step that has the lowest capacity, highest implied utilization. It does not have to be less th

Is that term used the same way we defined it?

Yes, it is. The bottleneck is what we call process capacity and Implied Utilization of the activity is biggest

How is the bottleneck concept used to drive production control at the plant?

- The flow needs to be less than the demand a little
- The demand of market is equal to through the bottleneck make the flow
- Influence efficiency and the effective capacity of every process in this plant
- Focus on increasing throughput



06

Does the story of Herbie remind you of any subjects we've studied in the course?

Three subjects:

#1 The effective Variability of flow time

#2 Bottlenecks

#3 Queueing

How do statistical fluctuations and dependent events affect the plant's performance?

Three ways:

#1 Dependent events

All of production capacity and machines have fluctuating speed, while the ability is restricted to run faster than average, which depends on all the others ahead of the machine in the line

#2 Statistical fluctuations

Much processes' capacity are accumulation of the fluctuations, but not averaging out of the fluctuations

#3 Increase both Inventory and Operational expense and reduce Throughput

07

What are the major operations lessons found in The Goal?

For example:

#1 Capacity of a process

#2 Process analysis

#3 Schedules Inventory

#4 Little's law

#5 Utilization

#6 Variability

#7 Bottlenecks, overtime, waiting time analysis

#8 Queueing

#9 Buffer-or-suffer

08

Do any of these lessons apply to a service setting?

Yes, they can apply to a service setting.

For example:

To calculate Bottlenecks
To know the situation of Queueing and Buffer-or-suffer people
To analyze the psychology of people who are in waiting
To meet customer expectations as much as possible

What things are different in a service setting?

#1

In a service setting, service setting is related to ambience and physical environment where the service can offer and fulfill.

For example:

Psychological situation of waiting, Blocking, Balking, Reneging

#2

Another difference like variability
Due to urgent new orders, the factory had to change the original production plan.
The staffing situation of the day is not static, and the service setting also needs to take these changes into account.

Thank you