

# WHAT ARE THE DIFFERENT TERMINOLOGIES USED IN VSM? PART 2



# VSM TERMINOLOGIES

## KANBAN

Kanban cards are signs used to direct the customer's need downstream.

## LEAD TIME

The lead time can be minutes, hours, or days. It is the amount of time that is required for the completion of an operation process. The lead time can also stand for the amount of time it takes before the next action can begin.

## MANUFACTURING LEAD TIME

See process time.

## NON-VALUE-ADDING TIME

This is the time that the customer is NOT willing to pay for. It includes the time spent on activities such as double handling, stacking the intermediate products, or even waiting time are termed non-value-adding time because they do not add value to the product directly. It is a waste that needs to be removed entirely or minimized as much as possible.

## OPERATION TIME

Calculated as the changeover time plus the processing time, the operation time is the amount of time spent on the production of a product.

# VSM TERMINOLOGIES

## PROCESS EFFICIENCY

Also known as the flow time efficiency, the process efficiency is derived from the division of the total process time by the total lead time. It is the ratio of the process or value-adding time with the lead time.

## PROCESS TIME

Also known as the process lead time, the processing time is the approximate amount of time required to handle a process in a production step. The processing time includes the order preparation time, the move time, the run time, the put-away time, and the inspection time. In simple processes, the processing time and the cycle time are interchanged.

## PULL

The pull principle believes that customer demands drive production. The lack of customer demands means no production process.

## PUSH

The push principle comes in play when the production process operates at full capacity, notwithstanding the customer demands.

## QUALITY RATE

While the quality rate can be indicated by defect products sometimes, it is well known as the ratio of all acceptable products.

# VSM TERMINOLOGIES

## SETUP TIME

Check changeover time.

## TAKT TIME

Takt time is the time needed to produce one unit of a product to meet customer requirements. The formula for calculating Takt Time is:  $T$  is equal to  $T_a$  divided by  $T_d$ . Here,  $T$  stands for Takt Time.  $T_a$  stands for Net Available Time to work and  $T_d$  stands for total customer demand.

## UPSTREAM

Upstream is a term that encompasses all the operations that are included in the first parts of the production process or the value stream.

## UPTIME

The uptime is a term used to denote that the needed equipment is available for use. It is the opposite of the term DOWNTIME.

## VALUE- ADDING TIME

It is time the customer is willing to pay for. Usually indicated by the processing time, the value-adding time is the total amount of time spent on activities that add value to the product.

# VSM TERMINOLOGIES

## VALUE- ADDING OPERATIONS

The operations involved in the transformation of raw materials into finished products are collectively termed value-adding operations.

## WAITING TIME

Waiting time is a form of waste when both the equipment and/or the personnel do nothing and remain idle. It can occur during inventory or while waiting for the arrival of raw materials. It can also occur during unscheduled downtime of a machine.

## WASTE

Waste is a collective term that describes any process, action, or inaction that does not add benefit to the production process. Waste includes overproduction, over-processing, unnecessary transportation, inventory, motion, waiting periods, and defects.

## WORK-IN- PROGRESS

The work in progress, which is abbreviated to WIP, follows the product in every step of the production process. It shows the current location of the product in the production chain. Used interchangeably, it is often used before the finished goods inventory.

**AIGPE**

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