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Business Value Stream Mapping

The process activity map forms the basis of several types of analysis not least the Value Stream, you obtain the proportion of value adding time and non-value adding time then obtain the time split between the various activities. Highlight any immediate problems or surprises then identify, via a Pareto analysis, the areas of greatest opportunity and record or benchmark the current status

Once this general analysis has been completed, you should probe into further opportunities, there are four possibilities for each step: -

1. It adds (external) customer value, these should be retained. but note that not every ‘operation’ step adds value, transport, delay, store, inspect and rework definitely do not add customer value

2. It adds process value (for instance changeover time, SPC, planning, evaluation, etc), which are currently necessary for the process, but do not add to customer value. Such activities are waste but temporarily necessary waste, aim to reduce then eliminate.

3. It adds business value (for instance, it benefits managers, employees, and suppliers). These too are waste, and need to be critically examined for efficiency or elimination.

4. It adds service value (for instance, repackaging in a mail order business.) Such activities may be waste in some companies, but not in others, simplify and reduce as it adds no value. These should be eliminated as soon as possible, or continuously reduced (as with transport).

If you are concerned with implementing JIT or one-piece-flow (and who shouldn't be?) it is good to have an idea of the ‘takt’ time, (‘takt’ time is the available weekly work time, taking into account the shifts worked and making allowances for planned stoppages (planned maintenance, team briefings, breaks etc) divided by the anticipated average weekly sales rate (including spare parts) plus any extras such as test parts and scrap).

‘Takt’ time should drive the whole thinking of the plant and the **supply chain**, in a plant it is the ‘drumbeat’

Operators working faster than ‘takt’ are either overproducing (muda!) or should be spending part of their day doing other things. Find out which is the case, if they are working much slower than the ‘takt’, time how is the system coping (overtime? assisted working?).

Some analysts distinguish between cycle time (the time between units), and the work time (the time actually working). The difference is waste, or rest, or imbalance, or waiting for machine, there may be opportunities for combining or rationalising work.

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