Seven wastes

Description

Waste is defined as any activity that does not add value to the customer or that the customer is not willing to pay for. Waste occurs in every process and in organisation. No matter how effective or efficient a process may be, some level of waste is always present.

Taichi Ohno, often referred to as the father of the Toyota Production System, identified seven forms of waste that exist in a process:

- Waiting Time – time spent waiting between activities
- Transport – movement between activities
- Component design – effectiveness of the tool in meeting its intended purpose
- Inventory – number of items of work at each activity step
- Over Production – any effort or output that exceeds the customer expectation
- Motion – movement within each activity
- Defective goods – outputs that do not meet the customer expectation

The continuous identification and removal of waste is at the heart of continual improvement and operational excellence.

Where to use

- To reduce cycle time
- To increase profitability
- To search for quick wins before focusing on detailed improvement projects
- As a framework for the continual identification and removal of waste

How to use

1. Define the end-to-end process
2. Identify the customer from whose perspective waste is to be considered
3. Walk through the process following the flow of the unit of work
4. Identify those activities that do not add value to the customer
5. Identify actions that minimise or eliminate each waste identified

Alternatively structure the forms of waste using an affinity or fishbone diagram
Handy tips

Identifying waste is the first step in eliminating it

Waste is determined by the customer. Seek their views wherever possible

Waste is equivalent to non-value add work and is the antithesis of that which is value adding work and used to calculate process efficiency

To distinguish between the wastes of transport and movement; transport is the movement of work between process steps, motion is movement within an activity step

Do not expect to totally eradicate waste, some level of waste is required for the process to operate. The key is to identify waste and continuously try to keep it at a minimum

Since Ohno defined the seven wastes, various other forms of waste have been identified such as underutilised human potential and environmental waste. Use only those that are relevant to your organisation

Example application

A large energy supplier provides training courses for its workforce via its off-site training facility.

The Career Development teams in each operating division submitted requests for training and would wait between two and four weeks for their request to be confirmed (waiting time).

Meanwhile the Career Development teams were responsible for obtaining authorisation from the line manager for delegates to attend training. Each request was walked between the delegate and manager for approval whilst waiting for the request to be confirmed (transport).

Every operating division used a different template for capturing training requests (component design) and there was always a back-log of delegates awaiting courses (inventory).

The yearly training schedule had courses scheduled multiple times throughout the year, regardless of demand (over production). Once received, the training administrator would navigate between different screens on the computer system to charge the relevant operating department for the course (motion).

Having been registered on to a course, delegates often found themselves on inappropriate training according to their need, leading to a decrease in training attendance and re-booking onto other courses (defective goods).
Consider using with
- SIPOC
- Process map
- Value stream map
- Process efficiency
- String diagram

Facilitation time

75 mins
## Eliminate Waste

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