# Lean in an office environment (part 2)

**I**n the previous issue, the article shared that up to a staggering 60% of a process can be non-value (waste). These add time and cost (overheads) to the company but does not add improve satisfaction to the customer. Minimising waste will help to reduce cost and enhance the competitive advantage. In the case of a service/transactional environment, the "product" will be the documents or ideals, proposals that are being generated and processed in the office.

### Waste categorisation

1. Over production
2. Inventory or WIP (work in process)
3. Motion or movement
4. Transportation of goods (conveyance)
5. Defects ,Errors or Inaccuracy, including rework (Hidden factory)
6. Waiting
7. Over process
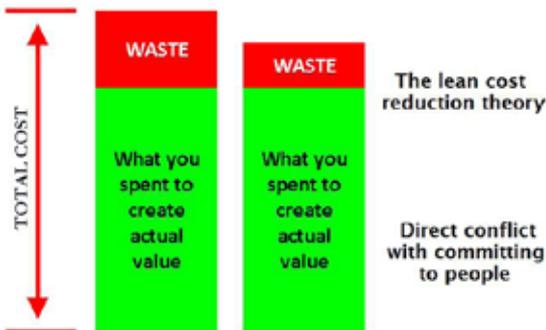


### Over Production and Inventory

Over-production is the origin of all wastes ("mother of all waste"). It is producing output more than what is needed for immediate use. This leads to inventory or work-in-progress (WIP). More importantly, it lures enterprises into a false sense of security as it covers up the inefficiencies such as quality, communication issue, poor scheduling etc. Documents being generated ahead of schedule or before the next operation is ready to process; these are symptoms of over production. Other examples include producing routine report that is not needed, or making extra copies for retention, multiple versions of a documents and subsequent reconciling effort and copying everyone in an email correspondences. The Lean pillar of Just in Time (JIT) and Pull Methodology will be effective to counter this type of waste.

Inventory is usually a result of multi-tasking or unbalanced workload. Unread email, unutilised survey
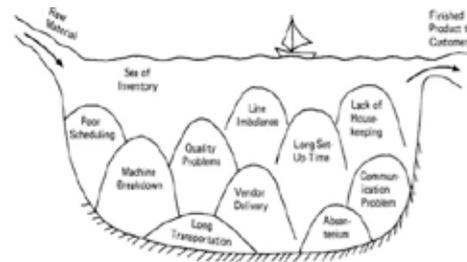


results, multiple on-going projects also constitute inventory. In such cases, workload balancing minimise working batching and making work visible (using a Lean visual management system) will be able to minimise the impact. Physical inventory (such as files and folders) also take up valuable real estate footprint.

### Motion and Movement

Unnecessary movement by people or documents and can come in various forms:

- Commuting between work sites and meeting rooms, office buildings
- Looking and searching for data and files on your desktop
- Navigating multiples screen, menu to input data on laptop
- Approval authorities located at different offices/sites

Travelling to meetings that do not generate outcome or new idea is also a "waste" trip. A meeting is probably not too cost-effective if it is just to update and share existing information. Revamping of the work place to improve the layout of shared resources and traffic flow (visualised with Spaghetti diagram) are possible countermeasures to mitigate that. 5S workplace organisation methodology is a good start point. Motion waste is rather prevalent in retail and F&B outlets by the sales staff or waiter.

### Transportation (conveyance)

The whole idea of transportation (not just product or document but also information) is a waste as it does not change the content of the document. Imagine the amount of information (and the cost incurred) we relay across our server exchange and how much it adds value to the business. If the exchange of information does not affect the form, fit and function of the service rendered, then it is of no value to the customer.

## Errors and deviations

When the service does not meet requirements (either internal customer downstream or external customer), then it is considered as errors and deviations. Typical metrics will be the percentage accurate and correct (%C/A) for each transactional process. In addition, any further checking and validation is a further waste. Rework (also known as hidden factory) to rectify the errors compounds the waste. Common examples are data entry error, design fault or invoice discrepancy. The rework loop will actually provide a good clue to the recurrent errors. Error proofing and source inspection are some methods to minimise errors and prevent them from cascading down the value stream.

## Waiting

Any time lag between the end of one transaction to the beginning of the other is a waiting waste. Common examples include waiting for meeting to convene, waiting for sign off, or approval, or waiting for software patch, software download and installation. A historical anecdote: waiting is the very first waste discovered and acted upon in Toyota in their effort to go Lean. Customer enquiries/call that are transferred from one department to the next frustrate the customer and result in lost business opportunity. In the case of centralised equipment /shared resources or faulty tools, waiting will be prevalent. A point to note is that excessive division of labor leads to multiple hands-off. Even escalation process typically have various level of approval in the chain of command, creating wait and stagnation. Possible counter measures include single piece flow or common work standard (SOP), SMED (single minute set up) and multi skills workforce that reduce hand-off.

## Overprocess

This is the case of doing more than what the customer needs or pay for, and common examples include over-retention of documents, converting between file formats, having to fill in same information to different documents or software system. Having standardised requirements, documents or software system and work scope will correct such waste. Nevertheless, there is a fine line between over process and delighting (Kano Model) the customer with "extra and frills". Enterprises must find the correct balance point to maintain that competitive advantage.

## Unutilised talent

Unutilised human talent, made popular by Norman Bodek[1], is the eight waste. It refers to capabilities of people that are not used or leveraged and happens frequently in large organisation where due to the silo nature of work, the specific skills and backgrounds of everyone are not common knowledge. This type of waste range from failing to capture employee ideas for new product or innovations to a highly paid executive correcting data in a financial spreadsheet. The biggest loss is not utilisation the scarce human resources to their best ability, leading to demotivation and resignation. An extension of this is the waste of knowledge[2], where due to silo mentality, different departments re-invent the wheel, spending time to work on issues that other departments may have previously encountered and resolved. Cross sharing of knowledge is usually uncommon in the office environment.

By identifying the waste highlighted, enterprise will be able to recognise them and take steps to limit and mitigate the cost impact. Lean is an inexpensive and holistic methodology to rectify most of these wastes. ▣

### Source:

https://www.linkedin.com/pulse/toyota-way-visualizing-costs-zeeshan-syed-%D8%B0%DB%8C%D8%B4%D8%A7%D9%86-%D8%B3%DB%8C%D8%AF-

**The 7 wastes of lean manufacturing** http://leanmanufacturingtools.org/77/the-seven-wastes-7-mudas/

**The Spaghetti diagram** http://www.allaboutlean.com/spaghetti-diagrams/

[1]  https://www.leanblog.org/2007/06/youre-not-developing-your-people/

[2]  http://txm.com.au/blog/the-ninth-waste-in-the-lean-office

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