



Identifying Waste

By: Sheila Julien, Senior Associate

Surviving and coming out ahead in these turbulent times demands that we all think carefully and choose well what to study and improve. Every organization has plenty of waste and opportunities for improvement.

But how do you find them?

Most organizations do not focus on identifying waste, but instead come up with lists of idea driven improvements. That is, someone comes up with an idea for an improvement (usually some new technology or equipment that will do something faster or better), puts together a proposal, and then tries to implement it.

The problem with the idea-driven approach is that there is very little correlation between the list of ideas for improvement and the biggest problems or opportunities for improvement within the organization. The idea-driven approach to improvement depends on someone identifying a solution at the outset. The biggest opportunities are usually buried in the tough long-term problems for which solutions are not immediately obvious to anyone! If a solution doesn't occur to someone, the problem doesn't make the list. If it doesn't make the list, it is never studied sufficiently to come up with a solution.

Organizations get further faster by identifying the waste first and choosing the best opportunities from all of the areas of waste you have identified. A portion of the waste is easily spotted and addressed if you take the time to collect the information. But much of the waste is hidden -- built into budgets, accepted practices, current operating procedures, and shared assumptions. It is built into processes that are compensating for problems that have not yet been solved. This waste is difficult to see without expanding the vision of what is possible.

How to identify the waste?

Over the years, we have seen several approaches to identifying the waste put into practice. Four such approaches to surfacing the waste are: the goal driven search, brainstorming, work walk-throughs, and examining the process. These approaches are discussed below.

A goal driven search:

Start with the most pressing organizational goal and drill down to find the waste that affects that goal.

Do you want to save time, money, improve quality, conserve capacity - what? The goal driven search for waste takes that goal and looks for any problem that affects it.

- If your goal is to free up people's time, you would then study the time to identify and prioritize every aspect that waste's time. A work sampling study would provide you with a great deal of information about this.
- If you want to free up production capacity, you would study and prioritize all the factors that waste your capacity - bottlenecks, set up times, producing the wrong thing (product that sits in inventory), yields - all the capacity spent producing product that cannot be sold, production capacity devoted to rework.
- If you want to free up cash, you would search for waste in all the cash expenditures: utilities, component inventories, can you accelerate collections, can you shorten the time between order and delivery to accelerate invoicing? Can you shorten the time to collection? Can you ship more from inventory without adding to it? Are you expending cash on overtime that could be reduced if you reduced time wasters?
- If you want to increase revenue, you would focus on identifying and quantifying the waste in all the factors that get in the way of sales. Use of sales reps time, selling methodology, lead generation and lead yield, causes of lost sales, delays in installations or shipments.

The distinctive feature of the goal driven approach is that not all waste is treated equally. Instead of looking for waste in all its forms, this approach zeros in to identify and prioritize for removal of all the waste associated with a particular important goal.

**The brainstorming approach:**

Collect a group of people knowledgeable about the work and solicit all the ideas about what waste is where.

The brainstorming approach is perhaps the quickest and easiest way to identify an extensive list of the waste in an organization. It is also a great method for getting people involved in looking for and identifying the waste. Because the people who know most about the work identify the waste, these people are often very committed to working on improvement projects to get rid of that waste. On the initial attempt to identify waste, people generally leave untouched the waste that is deeply embedded in operating practices and instead surface more superficial opportunities. However, some of these will bear substantial fruit and an organization's skill at surfacing waste will generally grow as it develops more experience with studying and eliminating waste. Brainstorming areas of waste is an excellent way to start an organization on a path of systematic continuous improvement.

The work walk-through approach:

Directly observe the work as it is done, searching for and capturing every bit of waste you can spot.

Staple yourself to an order! Not literally, but one way to identify waste is to get a group of people together to follow the work all the way through the process watching for all the places that waste occurs. It is a good idea to make sure your organization has a clear idea about "amnesty" and so that the people hard at work do not feel you are watching for any mistakes they make. As you know, almost all the waste in an organization is due to flaws in the system of work; management has the job of making sure the system is working well so as to minimize wasted time, materials, capital, etc. You can enlist people's help in identifying what aspects of the system make it harder for them to do the job right with the minimum of time and effort.

The check-out the process approach:

Create a value map to identify inventory pileups, bottlenecks, and delays. Use our process evaluation tool to analyze a process and identify and quantify the waste. Or use our SIPOC tool to evaluate a high level process flow.

A SIPOC diagram is a very high level process flow, identifying each key input and output of each process. Once you have these identified, you list the quality criteria for each input and output, select an importance factor for each criterion and select how well it is met (or "don't know") and our SIPOC tool will calculate the high impact areas to go after for improvement.

Please click on the SIPOC diagram image below to view in full-size

