by Joan Adams

Stop Wasting Time, Effort, Money!

The total elimination of "muda" is the key to improving operations and profit.

Let's start the new year with a quick Japanese lesson. "Muda" is the only Japanese word you need to know — it means waste. Reducing and ultimately removing all "muda" from your operation is the true focus of Lean Thinking.

Post World War II, Toyota was a struggling car company. It did not have anything close to the resources of GM, Ford or Chrysler. Notably, Toyota lacked space and capital. They had no place to build long assembly lines, nor did they have the money to build dedicated machines for each operation. In the U.S. and in Japan, they were struggling to compete.

Taiichi Ohno, an executive with Toyota at the time, developed a totally new way of thinking about making cars. It was the antithesis of mass production; he called it "Lean Manufacturing." Going Lean – essentially eliminating waste – required less space and money. This transformation allowed Toyota to begin to compete with the Big Three. Sixty years later, we all know the result of Ohno's efforts. Toyota cars have a reputation for quality, and their cost per manufactured car is significantly lower than any U.S. or European car manufacturer. In a few years, Toyota will overtake GM as the largest automobile manufacturer in the world.

In mass production, the only waste that is quickly identified is poor quality. The product is rejected in final inspection. In developing his Lean philosophy, Ohno identified seven types of *muda*. Later he added an eighth type of *muda* – people.

These eight wastes are not unique to manufacturing facilities, but occur in all companies. They are:

1. **Waiting**
2. **Inventory**
3. **Transportation**
4. **Over-production**
5. **Over-processing**
6. **Motion**
7. **Errors/Defects**
8. **People**

1 Waiting: The waste of Waiting happens all over your PVF supply house. Look around. Every day you see or hear of employees "waiting." They are waiting for a vendor's call, for a manager's approval, for verification from the warehouse, for a customer to send a PO, for a fax to arrive, etc.

It is simple: any time employees are waiting for something, they are not producing anything, yet they are costing your company money. Not only is your labor cost higher, but when employees are waiting then your machinery is idle, too. The trucks stand still while drivers wait for shipping information; forklifts are waiting for incoming shipments; your computers are idle, too, waiting for information to input.

2 Inventory: The waste of Inventory is one of the largest. In the PVF world, Inventory waste comes from overstocking materials, and from materials packed and ready to ship awaiting back-ordered items (more waiting!). Inventory costs money to purchase – and you don't see any return on that money until much later. Sometimes never. Inventory does become obsolete.

Money spent buying excess inventory could be used for things that are more important. Inventory eats up warehouse space, which also costs money. Inventory piled up all over the place causes inefficient operations. (Think of how often you see a big box of inventory blocking an aisle or impeding access to other materials.) To be sure, inventory is the lifeblood of a PVF distributor. However, most PVF warehouses suffer from too much of a good thing. More is not better, more is *muda*.

3 Transportation: The waste of Transportation is huge in most warehouses. Map the movement of a valve through your warehouse from the moment it arrives to the instant it is shipped. I bet it goes something like this:

The vendor's delivery truck drops it off at the receiving dock. Later, the valve is brought into the warehouse. Then the valve is stocked. When the material is needed for an order, it is picked, brought to a staging area and eventually packed. The packed box is then moved to the shipping area and ultimately put on the truck. Try the same exercise with the flow of paper through your office. Paper and products are

transported many more times than necessary.

4 Over-production: The waste of Over-production occurs less frequently in warehouses than in manufacturing. Over-production for PVF is basically doing work in anticipation of a quote or an order. Getting ahead always sounds like a good idea, but in reality if you pick and pack material ahead of the customer requirement you risk getting it wrong and will then have to do it again, wasting all the earlier effort.

5 Over-processing: The waste of Over-processing is a stealthy kind of *muda*. A perfect example of Over-processing is providing more value than the customer wants, needs, or (this is the key) is willing to pay for. For instance, many of your customers only need weekly delivery. Why go to the expense, effort, scheduling, to deliver orders to them any more frequently? They are not going to pay for it, and you are wasting resources doing it.

6 Motion: The waste of Motion is the people equivalent of Transportation waste. Any time employees go looking for something, time and effort is being wasted. Ask yourself how many times a day do your people go looking for parts, tools, information, or another person? They look busy, but they are not adding any value. This kind of activity is pure *muda*.

7 Errors/Defects: The waste of Defects occurs in two ways: information errors and material defects. Bad information can cause packing errors, delivery errors and billing errors, all of which are time-consuming nightmares to correct. Incoming defective materials must be returned. Materials damaged in the warehouse or obsolete materials risk being accidentally shipped to the customer. These must be carefully monitored and disposed of when caught. Errors and Defects do not just waste time, they make the customer mad – making it the worst kind of waste.

8 People: The waste of people is the hardest of all to grasp. It is hard to see whether you are fully utilizing your employees' skills, experience and talents. Perhaps this is why Ohno did not identify it until later. Your employees have a lot of experience – with specific industries, materials and companies – yet managers do not know about the expertise or how to use it. The biggest waste in PVF is with the workers. They know all sorts of things about your vendors, truckers and customers. Yet, they typically are viewed as "worker bees," not team members with value to contribute.

The Goal of Lean

The goal of Lean Thinking is to reduce waste throughout your company, freeing up all kinds of resources. For the next month, focus on the "Eight Wastes" and identify the *muda* that is all around you. In February, I will introduce some Lean Tools that will help you reduce and ultimately eliminate the *muda* that is sapping your resources. <<

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