

Lean Enterprise Academy



LEA e-letter – 15 June 2008

Lean Homework

Dear Lean Community Member

The consumer goods industry is waking up to lean in a hurry. With rising input prices and powerful retailers trying to keep the lid on prices they have few other places to go. It is finally time to try lean. But they may be disappointed if they just think lean is another form of cost cutting. No question that applying lean tools like TPM can improve asset utilization. But the real potential of lean is much greater than this.

I get frequent requests to go and explain lean to senior management groups. Before I go I usually set the lean enthusiasts in the organization (and there are always some early adopters of lean in these companies) some homework to do which will help us together to make a powerful case for lean.

The starting point is to discover the degree to which you are currently disappointing your customers today - how many orders do you satisfy completely on time, in full and invoiced correctly? Then go and talk to your marketing folks and ask how much more they think they could sell if you met every delivery on time, in full and invoiced correctly. They may not believe this is possible - but persevere.

Ask them how much more they could sell if you were also able to produce 30 per cent more of your high volume products with your existing resources. Then ask them what difference it would make if production could be varied to respond to changes in demand in days rather than weeks. And finally ask them whether supplying much fresher products to the market could also increase sales.

The next step is to analyze your product mix using the methodology explained in *Breaking Through to Flow*. You simply can't do lean on all your product lines at once - so start with the few high volume products that account for most of your production and sales. Treat these differently to all the other products using levelled production, or as Toyota originally called it "patterned production".

Then check the per cent variation in demand for these products and you will see you need much less buffer stock of these products than you think. So you can let this buffer stock absorb the variation in demand which is how you can implement leveled production for these items rather than constantly changing the production schedule as invariably happens now. By so doing you could create the essential precondition to really go to town with lean - basic stability - even where you did not think it is possible.



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The next step is to walk the physical flow back from the end customer for these products - counting the steps, time, touches and inventories as you go. Wherever the product stops ask why - is it because you can't rely on getting product when you need it? Or is it because you only make and ship the product once every few weeks? Or is it to buffer against fluctuating demand? Or all three - but how much of each?

Turning these observations into a value stream map for these products following *Learning to See* and particularly asking the questions outlined in that book will reveal all the improvements to make this product flow from door to door.

Next ask how often production ships its orders on time and in full as planned to the warehouse. Ask planning how often they issue a production schedule - maybe once a week for batches every several weeks. Then find the data to see the gap between what was planned and what was actually produced.

What you are seeing is the degree to which the planning system rather than buffer stocks are being changed in line with customer orders. You are also seeing the degree of order amplification being passed upstream. If you look at the electronic point of sale data for these products and compare it with the orders your company receives you will see most of this amplification is caused by the way data is handled and not end customer demand. This amplification is an invisible curse created by the algorithms in the planning systems requiring extra buffer stocks and capacity to meet artificial peaks and troughs in demand.

Now you have the basics to establish the business opportunity for lean and a series of actions that could be implemented to meet it. Put this into an A3 proposal so we can begin the dialogue to refine the plan before presenting it to top management.

Yours sincerely

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