



"Customer Pull"

This is one of the concepts of "Lean Thinking". It is also one of the more difficult ones to visualise especially when you are a customer or somewhere sorting out the paperwork within the process. Although the "Just-In-Time / Kanban" approach to manufacturing is often linked to "Pull Scheduling", it does not mean much to people who do not work in multi-component assembly processes. (See the Periscope File on JIT/Kanban for more details)

Origins

"Pull" was part of the Toyota Production System and attributed to Taiichi Ohno of the Toyota Motor Corporation. It is part of the suite of tools that lead to sustained profitability and consistently high quality in Toyota vehicles.

Using "Pull"

As a customer, it is difficult to see how one person's needs are "Pulling" the company along. This is also an issue for the support and administration teams in the company - how do they see themselves being "pulled" by the customer.

Most people would probably say that as far as they are concerned, "Push" is the reality. After all, when you order a car - your only choices are whatever is on the options list. When you go to a shop, your choices are what is available in the shop. "Pull" seems like an academic model with little consideration for the reality.

However, let's look at "Pull" in a different way with the following hypothetical example.

"You want to eat baked beans tonight. What enables you to eating beans on this evening can include:

1. You buying the beans this afternoon.
2. The shop having the beans on its shelves.
3. The warehouse delivering the beans to the shop.
4. The warehouse receiving the beans from the cooks.
5. The beans are canned and ready for dispatch to the warehouse.
6. The cooks finish cooking the beans and the cauldron of beans is ready for canning.



And so on ...

By working backwards from you eating the beans, you can easily establish a chain of activities that are absolutely essential to you eating your beans tonight. This chain of activities form the essential process steps and it is probably a very lean process.

Since anything not required by the customer in a product or service is waste. It is possible to work backwards from eating the beans to see whether there are unnecessary process steps that generate waste.

You can design a very lean process this way, by starting with the customer using the product (or service) and working backwards to eliminate all the unnecessary steps. In this way, it is possible for customers' needs to "pull" the process.

In the Periscope File "Six Sigma Quality", the SIPOC analysis is described as one way to look at the quality bottlenecks in a process. SIPOC stands for Suppliers - Inputs - Process - Outputs - Customers. SIPOC is used in many ways, including problem solving along the process steps.

However, if we start with the customer and the output desired by this customer, it is then possible to move backwards (as in the baked beans example earlier) to establish what activities



are necessary to enable the desired output. This assessment will often offer a small number of steps between the supplier and the customer. This is probably lean "perfection" and unlikely to be achievable in practice.

Nevertheless, by using SIPOC backwards (COPIS), it is possible to assess the entire process for waste based on the "Customer Pull".

Issues with using "Pull"

In principle, "Pull" is a simple tool to use (remember the baked beans example). However, in reality, it is quite easy to get totally immersed in all kind of activities that are essential to delivering value to customers. In the example of the beans, these can include:



compliance to health and safety legislation; advertising the beans; being connected to an energy utility; making sure the bean canning machine is maintained; security alarm for the bean warehouse; lawyer fees to fight counterfeit brands... and so on.

It may be better to determine and limit the scope of the process prior to starting a COPIS - "Pull" analysis, or to have a very large wall, lots of marker pens and a lot of patience.

Additional Sources of Information

The Lean Enterprise Institute <http://www.lean.org>
 The Lean enterprise Academy <http://www.leanuk.org>

Womack, J. And Jones, D., "Lean Thinking", 2nd Edition, Free Press, 2003
 Ohno, T., "The Toyota Production System", Productivity Press, 1998
 Japan Management Association (Edt.), "Kanban Just-In-Time at Toyota", Revised Edition, Productivity Press, 1985