

Taking Responsibility for Pull

June 2005

Daniel T Jones

I am always surprised how little companies know about the further reaches of their supply chains, and how few take real responsibility for designing them. They seem to have evolved over time as different purchasing directors have come and gone. This is not just about who makes what, at what price and where. But much more significantly it is about how all the replenishment loops upstream of the pacemaker process for the whole value stream are coordinated across many different suppliers. It is probably true that you get the suppliers that you deserve!

So where is the pacemaker process for your end-to-end value stream? In car making the whole system is obviously triggered at the assembly plant. However for many consumer goods the value stream is or should be triggered by customers pulling products from the shelves in the retail store. Wherever it is, in my view the lead firm has the responsibility to determine and coordinate the way the whole value stream is configured. It is also their responsibility to establish the framework for how all the suppliers and sub suppliers work together to continually reduce costs over time and across product generations.

And it is the responsibility of every firm to pull all the components they need from their immediate suppliers, by picking them up as frequently as possible, rather than waiting for suppliers to fill a truck and deliver to them. This helps to compress time and improve responsiveness across the value stream and is the most effective way of eliminating noise and created demand amplification in the order signals passed upstream. Noise creates the most insidious waste of all – excess stocks and excess capacity to deal with the peaks and troughs of orders – for which everyone denies responsibility!

I was reminded of this in reading a remarkable article in the New York Times on 12 May 2005 (*Heavy Load* by Norihiko Shirouzu and Jathon Sapsford) describing how Toyota has designed a completely new production system for its low cost van and pick up for developing countries. This IMV project, as Toyota calls it, bypasses their traditional production sources in Japan and is made up of a network of plants and suppliers stretching from Argentina to India, Indonesia, Thailand and South Africa. Their objective is to produce a series of rugged vehicles for developing countries that cost 25% less than previous models. The first of these vehicles has just gone on sale in Thailand.

In addition to normal target cost down exercises on every component, Toyota also went to great lengths to correctly configure the entire supply base for this family of vehicles. "Toyota set up a war room for IMV production at its office in Bangkok. On the wall is a long line of coded numbers, each representing a component, from wipers to heat sensors to nuts and bolts. Red lines fan out from each component to its subcomponents, which in turn have more red lines going further out to further subcomponents. In some cases, the components are traced back to 12 levels of suppliers." It took time to map those supply chains. But once they did they discovered all kinds of places where subcomponents were going back and forth between suppliers, needlessly raising costs.

This investment in designing a completely new production system is obviously a big undertaking. However it gives them an extremely effective base from which to triple their sales in developing countries. How many companies going to China or India have done this level of analysis or shown this kind of strategic thinking?

Closer to home the most significant example of a firm pulling products from its suppliers is Tesco. Their move to factory gate pricing and organising inbound distribution is being followed by other supermarkets. The implications of this move will be felt across the economy as almost all consumer goods are now being sold through supermarkets. As others follow, Tesco are well placed to take the next step and actively reconfigure their supply base to eliminate wasted trips and time and to encourage their suppliers to pull products in turn from their suppliers, and so on right back to raw materials. Have you thought of following in Toyota and Tesco's footsteps to pull products from your suppliers?