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ADVANCE TO THE PAST

Time going by, usually conceived as being linear in the West, takes a circular form in India. Things come back again, patterns repeat themselves, instead of advancing. Nothing is ever definitive; the idea of regular progress towards an objective is replaced by a cyclical return to things which previously existed.

Sometimes in my visits to companies, I see management tools at the tip of progress being used…if we're talking about the 1960's! In particular, le advent of Lean in many companies has resuscitated the order point (minimum stock level, replenishment level), which has been obsolete for more than 30 years. "Kanban is a minimum inventory, a two-bin replenishment system," is a remark often heard.

Why is the order point obsolete? For four principal reasons:

(1) No visibility. You know when you're under the order point when you get there! You don't know when you will fall under it the next time, the time after that, and the time after that…and worse yet, your suppliers don't know either.

(2) Assumption of regular consumption. The forecast of consumption during lead time, the first part of the order point, supposes average daily consumption. However, in the typical company, very few items are consumed every day or even every week.

(3) Application of a technique for independent requirements to requirements which are dependent. Since 98% of requirements in a supply chain are dependent, they can be calculated and positioned out in time by Material (or Distribution) Requirements Planning. Making a forecast to calculate the order point is not only non necessary but clearly wrong.

(4) Creation of safety stock. The safety stock, second part of the order point, doesn't help at all to cover demand variation for an item which is a component of an assembly or a kit. A safety stock offering 95% protection for a single component, falls to 90,03% for two components needed at the same time (0,95 X 0,95 = 0,9025), and falls to 59,9% when 10 components are required (0,95 X 0,95 X 0,95 X 0,95…10 times).

The big ERP packages are responsible in large part for this regression to order point. Often, they are used with benefit in financial management and in sales and marketing. But for industrial management they are so complicated and costly to implement and to run, that people give up.

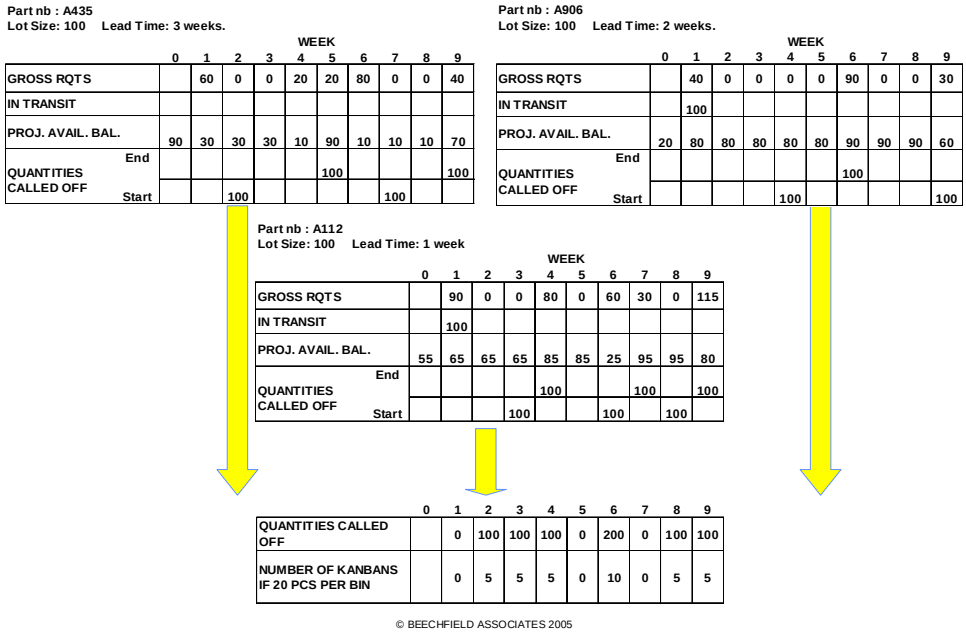
For example, defining the parameters often takes 2 to 4 man-years. But setting the parameters should take a few weeks. Parameters are simply a reflection in the system of the rules and guides already being used, such as lead time, lot size, planner code, etc.

One company in the chemical industry implemented a large ERP software package on 14 sites. When I went to visit them, they showed me their production and inventory management…done by hand by calculating an order point for each of their items using Excel! The big package was used only for financial management and inventory keeping. But the production and inventory management system on Excel was so cumbersome to use that they could update it only once a month. Millions were spent on IT systems and ERP software, to obtain an industrial management system up-to-date…in 1964!

A better approach is to have the dependent requirements calculated by the MRP or DRP module of the ERP software in standard fashion, meaning: simple and easy to understand. The MRP or DRP report shows the planner the Projected Available Balance, and indicates when it will fall under the desired level (which can very well be zero). That's an order point modernized and time-phased.

The planned replenishment orders positioned by MRP or DRP to avoid the future shortage, represent the number of Kanban signals which will be generated each week for the item or, better yet, for the family, if you're using Generic Kanban.

ANTICIPATE THE NUMBER OF KANBAN WHICH WILL ARRIVE



Armed with this vision anticipating the number of Kanbans which will arrive, a company does…nothing, except preparing the right quantities of raw materials and components. To actually produce (or ship), it waits until the predicted Kanbans actually do show up.

Using the order point instead of anticipating replenishment call-offs, is tantamount to ignoring 40 years of history. Using Kanban only as a two-bin system, is tantamount to ignoring 50 years!

Imagining the passage of time as a straight line may be oversimplified. Cycles do exist but are more spirals than circles. We can come back to a point previously known but the new point is in the next ring of the spiral, with respect to the previous point. In the example at hand, the distance between the two is measured in decades.