

FROM THE FIELD

By Bill Schneiderman



Find a Hidden Treasure in Manufacturing

Pragmatic lean **manufacturing** allows manufacturing executives to get more out of new and existing **business** processes and corporate **assets** by using pragmatic lean techniques.

Many companies today believe their manufacturing operations have been optimized and do not realize the hidden profitability that can be discovered. While many companies look to off-shore manufacturing in China to increase profitability, there is still profitability treasure in manufacturing here in the United States. This is especially applicable where considerations of transportation costs, order fulfillment velocity, quality, and customer satisfaction are paramount.

Traditionally, lean manufacturing has been embraced and held the promise to improve efficiency and profitability. But unfortunately, lean manufacturing has generally been applied in an all or nothing con-

text. Companies get carried away with the ideal concept of lean manufacturing. It does not have to be a concept that changes everything. Lean manufacturing has become the end rather than the means. Enter pragmatic lean manufacturing, a new concept for improving the product design to manufacturing process and efficiency of the go-to-market cycle.

Pragmatic lean manufacturing works for low volume and high complexity or mass volume and low complexity product manufacturing. Pragmatic lean manufacturing allows manufacturing executives to get more out of new and existing business processes, and corporate assets by using pragmatic lean tech-



Pragmatic lean manufacturing drives the marriage of people, processes, systems, suppliers, facilities, and technology.

niques. Pragmatic lean manufacturing takes an approach that starts with the business strategy as the foundation, layered with a prioritization, in terms of importance, of people, process, systems, suppliers, facilities, and technology.

How does it work? Let's look at a step-by-step approach.

Step 1: *Look at what the company is trying to accomplish and how to get there.*

Pragmatic lean starts by examining business objectives such as increase profitability and/or improve customer satisfaction and/or increase/raise quality. While changes in product design or process technology can be powerful performance enablers, pragmatic lean manufacturing does not always require these. For example, a client in printing believed that they needed to completely move to new technology and a larger facility. As it turned out it was all about people and manufacturing flow. The result is that the company reduced labor costs by 20 percent, improved order turnaround times by 50 percent, and experienced a 10 percent reduction in product costs without either the new facility or new technology investment.

An inflection point in the product life cycle is an opportune time to make a product easier to manufacture. To sustain market share, as a product category matures, it is necessary to offer more product variety, often making the manufacturing process more complicated. Pragmatic lean manufacturing embraces the notion of offering customers greater choice and more value, while looking for productive ways to deal with variety. Some companies can adopt a postponement strategy, using a more modular design that is easy to manufacture while still maximizing customer choice.

With any changes in manufacturing, it is critical that product development and manufacturing work together on evaluating the product architecture and suppliers in order to maintain the highest product design to manufacturing profitability.

Step 2: *Assess and evaluate the current business process or processes necessary to accomplish the business objective or multiple objectives.*

Pragmatic Lean Manufacturing

Pragmatic lean manufacturing can be describe by certain points:

- Derives from a business strategy
- Can be organizationally driven from the top down or bottom up
- Enables customer choice/value and does not impose process constraints on customers
- Looks at people and process before looking at changing technology and facilities because changing the process gets large returns
- Minimizes capital investment

Business processes can include the analysis/cost of product production; the response time, and steps involved to fill an order; manufacturing time cycles; the utilization, space, and design of facilities; and quality initiatives. For example, if quality is improved, the result can be an increase in sales and fewer returns that plays into improving overall profitability. Most of the time there is a need for business process redesign. Companies usually look the hardest at technology and facilities when they really need to spend more time on the business processes and people. They need to look at what kind and how many people are needed to fulfill their strategy, and how people should behave in their work.

Step 3: *Leverage relationships with suppliers.*

It is important to clean up in-house before expanding to look at additional suppliers. The excellence in a supply chain is not about one link. Problems arise when a supplier misses deliveries or delivers products that cannot be used. It is critical to tie manufacturing into the customer experience in order to realize whether the supplier is under performing. Where supplier quality is at issue, any solution requires joint action across manufacturing, supply chain and product development resources.

Pragmatic lean manufacturing often involves making changes that better leverage relationships and arrangements with suppliers regarding issues such as raw materials, packaging, and outbound transportation. There is nothing magic in pragmatic lean manufacturing. It is about reducing transport waste in time and geographical distance. In addition, it may be necessary with multi-site networks, to change the role or mandates of sites, collapse sites, and relocate sites to address the issues of

back-end distribution and the geographic location of raw materials.

Step 4: *Examine current technology.*

Companies do not embrace and implement pragmatic lean manufacturing in order to have a beautiful manufacturing plant. It is subordinate to the business objective. Generally pragmatic lean manufacturing results in minimal changes in technology, but often a re-layout of existing facilities. Current systems are often kept, and the change comes in how they are used. Changing how current systems are applied is much easier, faster, and less expensive than changing to a new system.

Pragmatic lean manufacturing drives the marriage of process, facility, and technology — with an emphasis on the physical and business information processes, the factory design, and how everything together can work optimally.

Evaluating the success of pragmatic lean manufacturing requires asking, "Are the designated business goals being met?" Also, "What are the savings in terms of hard resources, capital, and people?" It also involves evaluating improvements in reducing time to market and increasing customer satisfaction.

A company is a candidate for pragmatic lean manufacturing if its goals are to increase customer satisfaction or reduce delivered product costs, with expected leverage in labor, processes, facilities, and the supply chain.

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