Managing Process Improvement for PLM

BY JIM BROWN, FOUNDER AND PRESIDENT, TECH-CLARITY

Few would argue that process improvement is central to gaining value from PLM solutions. Buying new software to automate existing processes typically leads to modest results, if any. You have to change the way you work, not simply implement new technology, in order to achieve meaningful business results.
So how should you go about process improvement? Everyone talks about moving to “best practices” but what does that actually mean in terms of defining new processes?

Manufacturing companies typically struggle with this issue when they explore new or upgraded PLM applications. They can’t decide whether to re-engineer their entire product development approach before implementing the software or take a less ambitious tack.

Some argue that keeping or modestly adapting existing processes is faster, and they may be right. I have seen companies spend a year or more just to develop or harmonize processes across several business units.

Others argue that it is better to adopt the processes built into the new software that their vendors provide. After all, the vendor has worked with a great many customers over the years and built best practice approaches right into an off-the-shelf solution. Why should the manufacturer reinvent the wheel? But if they already have effective processes, should they really throw them out and start again with a whole new approach?

These are tough questions and decision factors vary widely across different manufacturing organizations. Recent research on key success factors for PLM by Tech-Clarity and PTC Global Services, however, provides some important guidance for companies exploring this critical management issue.

Research Suggests Best Practice Approach

In a survey of 190 manufacturing firms from Europe and North America, we asked participants to identify which one of four different approaches to process improvement most closely matched the way they managed their PLM initiative:

- Existing business processes drove software customization.
- Business processes and software functionality were developed concurrently in an integrated fashion.
- Business process changes were based on software-defined processes.
- Business process changes were made independently of software-defined processes and functionality.

About the Research:

PTC Global Services and Tech Clarity, an analyst firm that specializes in product life cycle management, interviewed 190 senior business and IT leaders in April 2012 about their experiences with PLM. The goal of the telephone survey was to understand key success factors in planning, implementing, and adopting PLM solutions in complex manufacturing environments.

The survey highlighted four issues: PLM strategy and approach, programmatic challenges, implementation and adoption techniques, and adoption. Survey participants included representatives of a wide range of manufacturing companies across Europe and North America, including automotive, aerospace, industrial, and consumer products.

About PTC Global Services

The 1400 professionals at PTC Global Services help the world’s leading manufacturing companies gain product and service advantage through solution strategy and design, process transformation, technology configuration, and organizational training and adoption. Our in-house experts and premium services partners work overtime to ensure the best possible results and maximum return on investment. Learn more at PTC.com/consulting.

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We then compared their responses to an overall review of “high performance” in PLM to understand the relationship between process change and ultimate business value. According to survey data, 22 percent of participants are high performers in PLM with much greater improvements than others in three essential business metrics: improving time to market, increasing product development efficiency, and reducing product cost.

As shown in Figure 1 above, the greatest number of high performers (39 percent) improve processes and software concurrently. These companies improve business performance by changing the way they do things but not entirely reinventing the wheel and ending up with unique processes that aren’t supported by the software.

They leverage what the software offers where it works and use custom processes where they need them. Often, the most successful programs will adopt a small number of unique practices for particular competitive, differentiation, or industry needs and rely on standard best practices for other functions.
The point here is that while process improvement is essential to PLM success, companies don’t need to define new processes in a vacuum. They should evaluate their processes in relation to those embedded in the software and determine which should help drive their new way of doing business.

The research shows that this is the most common approach taken by high performers and the one that most differentiates them from lesser performers. In fact, the lower performers were much more likely to simply keep existing processes and customize the software to support them.

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Jim Brown
Founder and President, Tech-Clarity

The concurrent approach is not the only way to succeed, however. Almost one quarter of the top performers (22 percent) improved processes independent of software change. This helps underline the importance of process change as a driver of business value, but shows there can be different ways to get there. Past experience (not tested in this study), though, does suggest that the concurrent approach is faster than redefining processes altogether.

Another 22 percent of the high performers adopted the processes built into the new software, similar to the 21 percent of lower performers that took this same approach.

In summary, while there may be more than one approach to PLM success, two things seem clear:

- Improving processes versus automating existing processes is much more likely to lead to greater business value.
- Taking a concurrent approach to process and software improvement is the most likely path to success.