

Deployment models: How mature are your operational practices?

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Before setting out toward operational excellence, companies must see where they stand. A good maturity assessment provides more than a set of coordinates; it also maps out the first steps.

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The authors wish to thank Marc Bielitza for his contributions to this article. Many companies seek to use the power of lean to transform the productivity, quality, and reliability of their operations. For any such company, the right starting point is a dispassionate assessment of its current processes, capabilities, and culture. Without knowing where it is today, an organization cannot determine a realistic future-state vision or design the journey needed to get there.

Yet for too many businesses, misunderstanding their current lean and employee capabilities can make this journey more difficult than it needs to be as they attempt to accelerate their pace of change. This common mistake can lead to misjudged priorities and investment efforts in the wrong areas. Eventually, it can even overwhelm the organization, leading to another failed project or transformation.

Let's look at two relatively common real-life examples. In the first, the CEO of a manufacturing company is excited about the possibilities created by the emergence of digital technologies. She asks her management team to explore the opportunities to increase automation and make better use of digital data across its manufacturing and product lines. The team does as they are asked and promptly comes back with a list of exciting and innovative ideas. When implementation begins, however, the company quickly learns that a lack of basic building blocks-like stability and standardization in its manufacturing processes, or a robust planning system in the maintenance function-means most of the ideas prove unsustainable in practice. This company would have done better first spending time to build a simple, robust lean culture and mastering its fundamental

tools. This would be the right foundation for more sophisticated improvements later on.

In the second example, consider a company with a global network of manufacturing sites. Such an organization will often pick a single site as a location to begin its transformation—perhaps the largest, the newest, or the one located closest to headquarters. After assessing the maturity of operations of that site, the company identifies some significant improvement opportunities, designs a transformation program, and begins to roll it out across the network. When it does, however, it quickly learns that differences in approach, capabilities, technologies, or culture at its other sites around the world mean many of the improvements are not applicable to these sites, even though they were implemented successfully at the first.

Either of these situations could have been avoided with a more effective reflection or a maturity assessment at the start. In this article, we'll look at the characteristics that make some approaches to maturity assessment better than others, and we'll go on to see what companies can do once they *really* know where they stand today.

Measuring maturity: Four key principles

In our experience, a good maturity assessment should follow four guiding principles.

First, the assessment should be conducted by an independent team, either part of a company's central operational-excellence team or a third party. It should not, however, take place in an "ivory tower" or office environment (especially with operations further away from the headquarters). It needs to be done on the shop floor, where the work happens. This philosophy, known as *genchi genbutsu*, or "go and see," is already seen as a fundamental tenet of lean management. Firsthand scrutiny of real working practices by independent evaluators is important, because managers may take a rose-tinted view

of their plant's capabilities if asked to fill in a questionnaire about their practices. Even raw productivity and quality data rarely give a full and accurate picture of the issues and challenges at a site. It also matters because direct observation of working practices helps those making the assessment to better understand the culture and atmosphere of the facility. In addition, establishing a face-to-face contact and conversation with frontline teams can start a communication-and-change process that will be fundamental in enabling improvement over the long term.

Second, the assessment should take account of the conditions that surround the site under review. For example, the main challenges and improvement opportunities for a site operating in a low laborcost country may be very different from those seen in Western countries. Similarly, the overall level of education, skills, and experience in the workforce may vary significantly from site to site, as might attitudes toward teamwork or flexible labor practices. Critically, the mind-sets and skills of managers are every bit as important as those of frontline teams, and these can be even more variable across sites and regions.

Third, the assessment should look at what really defines the success of the company's operations, rather than simply checking whether certain productivity-improvement tools are in place. For example, single-minute exchange of dies (SMED) is a widely used approach. It helps companies decrease downtime and increase production flexibility by reducing the time required to switch between different product variants on a production line. Merely using such a tool as a de facto best practice without reviewing its suitability for the production site in question will typically not yield the expected productivity leaps, however. If lines already have excess capacity, a reduction in downtime won't earn the business any additional sales. Rather than checking for the existence of a tool ("Do you use SMED?"), the maturity assessment should ask whether the business has a

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specific problem in this area ("Is your production constrained due to inefficient changeovers?").

Finally, the aim of the assessment should be to identify concrete improvement actions, not just to rate current performance. Learning that process reliability at their site is 30 percent lower than others gives managers no indication about how that might be improved. A more useful maturity assessment would identify some of the underlying causes of that poor performance (like delays in getting maintenance teams to respond to unplanned stoppages) and suggest appropriate solutions (like an efficient information flow based on standard failure notifications to trigger the repair process).

Assessments in practice

To meet these guiding principles, an effective maturity assessment approach will have certain characteristics; these include what is assessed, how the assessment is made, who carries out the assessment, and when the assessment is done.

What

The assessment needs to take a holistic view of site performance. This can be done by ensuring the assessment covers all relevant categories.

These categories will vary depending on the processes under review. In technical processes (like manufacturing, maintenance, and logistics), they need to include the technical system that defines the site's processes; the management system it uses to control, monitor, and continually

improve those processes; and the people system it has in place to develop the capabilities and culture of its workforce.

To evaluate management principles, the assessment needs to consider whether sites are able to connect strategy goals and meaningful purpose, enable people to lead and contribute to their fullest potential, discover and deploy better ways of working, and deliver value efficiently to the customer.

Beneath each of those categories, maturity is defined by a site's ability to demonstrate certain characteristics across a dozen or more specific topics, ranging, for example, from target setting to health and safety and employee development.

How

As discussed earlier, assessments should be based on firsthand observations, supplemented by interviews with site managers and operators. Online forms or self-evaluations done by site managers simply do not provide the objectivity and accuracy of insight needed to translate the findings into an actionable implementation plan. However, conducting both an internal assessment and an external assessment and then comparing the two viewpoints can lead to very powerful discussions, especially about differences. To ensure applicability and acceptance, the assessment (especially the language it uses) needs to take into account the context of the plant and industry in question, and the language terminology commonly used there.

Who

Assessments should be conducted by experienced evaluators with sufficient knowledge of the business, the industry, and lean principles and tools. Typically, the assessor should be someone external, not from the area being assessed, such as someone from a different site or business unit or even fully external. It typically also helps if the assessors are also at least partially involved in the implementation of any subsequent transformation program.

When

Every transformation effort should begin with a maturity assessment effort, but an assessment is not a one-time process. As companies implement changes, repeating the assessment at regular intervals (typically every 9 to 12 months) is helpful to check that the current transformation plan is working, to identify deviations from the plan that may require additional efforts, and to uncover new improvement opportunities.

Prioritizing for action

Based on the individual answers and observations, a maturity assessment should provide a clear definition of a company's starting point and lay out a set of tailored improvement initiatives. As a company cannot usually hope to tackle all these initiatives at once, it will need to prioritize them accordingly (typically based on likely impact of each idea against how easy it will be to implement).

Some companies will already have the internal capacities and abilities they need to start working on these prioritized initiatives. In many cases, especially where they are at the beginning of their lean journey, companies may struggle

to identify the individual actions needed for implementation. Here it is helpful if the maturity assessment also describes a step-by-step guide to implementation, with clear action items. Ideally, these will be highly detailed, explaining resource requirements, including training documentation and suggesting expert contacts. For example, the introduction of a good performance-management system on the shop floor will typically start with the definition of meaningful key performance indicators and the design of an appropriate review board. These steps will be followed by training for shift leaders, a sequenced rollout over different shifts and areas and processes that help sustain these changes (for example, implementing leader standard work and process confirmations).

Such a sequential list of actions can be developed into a cohesive and workable plan with a defined timeframe for completion, tailored to the available resources. This tactical implementation plan (TIP) will dramatically help a site make progress in its transformation, boosting its chances of success. The details of the TIP will be different for every site, depending on its own goals and starting point. While two sites may share the same overall objective in one area, for example, they may plan to proceed at different speeds.

Companies can only make rapid, sustainable improvements to their performance if they know exactly what to do next. The maturity-assessment process is a critical part of any organization's journey to operational excellence: a navigational device that pinpoints its current location, shows where it needs to go next, and helps it on its way.

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