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Bikers Learn from the Army

Harley-Davidson uses after-action reviews to build a smarter production process.

by Ricci Graham

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As an officer in the U.S. Army, Ted Gee was introduced to after-action reviews, a knowledge discovery process that serves as an essential training methodology for soldiers in preparing for both combat duty and ongoing programs such as peacekeeping initiatives. Over the last decade, the business world also has been experimenting with AARs as a way to generate, apply and preserve business knowledge. For these businesses, AARs provide a process and tools to narrow the time between acquiring and using knowledge and can help to develop a culture in which performance improvement is seen as part of the ongoing work process.

Almost 10 years have passed since Gee last donned a uniform, but he still salutes the AAR concept. Now director of manufacturing at Harley-Davidson Corp.’s newest plant in Kansas City, Mo., Gee is a key player in the motorcycle maker’s drive to integrate the AAR process into manufacturing at the plant, which opened three years ago. Top management, looking to improve learning and enhance the planning process, has made a company-wide push to adopt AARs, and the company’s continued growth makes knowledge management critical to its immediate future, Gee says.

The Harley corporate team in Kansas City has adopted a slightly different AAR model than the military uses. "We’re looking at not only what went wrong but why," Gee says. Under his leadership, the plant is linking the gathering of knowledge about why something went wrong to implementing solutions on the production line.

Post-mortem inertia

The traditional post-mortem type of review process—meeting after an event to assess and document what went right or wrong—generates information that typically ends up in a binder gathering dust on a shelf, seldom to be examined again. "Virtually all of the after-action reviews that we’ve run across in the corporate world are actually post-mortems or retrospectives," says Marilyn Darling, founder and president of Signet Consulting Group of Boston, which focuses on corporate learning processes and strategies. "The problem is, when you’re at the end of a project, you can’t make any changes in the outcome of that project. All you can do is document what didn’t work. It’s a retrospective process, and seldom is it really focused on improving in the future. Even with the intention to improve, there’s no future to look at because the team is at the end of the project and about to disperse, and they just want to make sure they collect lessons for some undefined future action."

Studies on the learning process show that the more time elapses between discussing a lesson and applying it at work, the less likely it is that knowledge is retained and thus integrated into office procedures. That’s not the case at this Harley-Davidson plant. Early last year, Gee introduced an AAR strategy that he describes as "forward-thinking" and "iterative." Information generated by the AAR program is immediately applied in the development of new product lines.

This approach follows the design refined over the years by the army. "A lot of people do after-action reviews solely based on what went wrong," says Gee. "For any kind of project, you make initial assumptions as to what is going to happen based on the information you have at that time. A lot of companies, after the event has happened, just take a look at what went wrong with the project and then drop it." This mindset carries negativity within it, in Gee’s view. "When you focus only on what went wrong, that’s not good from a morale perspective," he says. "If you go into a room where all you’re going to talk about is what went wrong, people aren’t going to be open and honest."

Instead of using AARs for post-production problem identification, Harley-Davidson is integrating them into the production process to learn from what was done right as well as wrong. For example, prior to any major "build event" such as the introduction of a new design, managers, hourly employees, engineers, marketing officials and buyers gather to document initial assumptions in project plans for each new platform. "Some of the assumptions are where you expect to be on costs, timing and different issues you may have throughout the build," Gee says. Later the team compares its assumptions to the actual results and evaluates what worked and what should be modified in the next phase of the build event. The review process is conducted several times so the team can smooth out kinks in the design and manufacture of new products.

"After we do each one of the after-action reviews, we get everyone together who has been involved in a particular project, and we have almost a brainstorming session," says Gee. "We'll capture all notes. We'll take the first two [AARs] and get the actual learning. The lessons learned and what we would do differently are the two additional pieces we do to make sure the things we do in the future are a lot better."

Darling has been studying Harley-Davidson's use of AARs as a knowledge discovery strategy. What has impressed her most, she says, is the corporation's decision to integrate them into the actual build process. "In preparation for new product introductions, Ted Gee just ran three prebuilds, where they basically turn on the manufacturing line for a day, build some product and then do the AAR again. He's building in after-action reviews in preparation for a new product introduction. By the time they get up to the first day of production, everybody on the team has had a chance to test out their assumptions, and they walk into the first day of production with a lot more confidence and understanding about what it's going to take to succeed."

Process improvements

While AARs were introduced only last year at the plant in Kansas City, the concept is familiar to the Milwaukee-based manufacturer. Harley-Davidson began integrating AARs at a number of its facilities in the United States over five years ago after being introduced to the practice by the Society of Organizational Learning, a consortium of about 25 corporations based at the Massachusetts Institute of Technology in Cambridge, says Tim Savino, director of organizational development for Harley-Davidson in Milwaukee. Prior to that, according to Savino, the company conducted a "good news/bad news report," which came to be considered obsolete because it, too, was retrospective in nature and had failed to provide the foundation of learning that the company sought. Over time, Harley-Davidson has made AARs a critical component of product-development methodology at its development centers and plant operations throughout the United States.

"It changed the nature of the good news/bad news report," says Savino. "It's while we're designing that we take time out to look at what's working and what isn't working, so we can improve the design process and also document some of these learnings for the future. It's a way to institutionalize a reflective activity. There's nothing fancy about the AAR process, but having the discipline to do it is another matter."

Both Savino and Gee believe that the greatest challenge in integrating the AAR doctrine is encouraging openness among the people involved—something many employees are uncomfortable with. After all, it can be intimidating for an assembly-line worker to discuss the shortcomings of a product-development process in the presence of an executive who may have designed or championed the practice. Additionally, the meetings can lead to heated discussions that some may misconstrue as criticism directed toward them or their department. The key, according to Savino, is to encourage openness and honesty and to assure all participants that the discussions are meant only to improve product development.

"Getting people to speak in a way that tells the truth about what's going on could be tough to do," Savino says. "It takes a while for people to feel comfortable. They really want to know what's working and what isn't working, but in a way that is not blaming. That's the real challenge: to set this up so that it isn't an opportunity to point blame but to learn about what's working and what isn't."

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