Productivity Press: Integrating System Dynamics and Japanese Management

In recent years, Japanese management practices have been applied to U.S. companies with varying degrees of success. Although in principle such practices should work, the lack of systemic insight into organizations has often led to unsatisfactory results. Integrating the tools and principles of systems thinking with traditional Japanese management practices promises greater success in improving organizational learning and performance. Productivity Press, recognizing that potential synergy, has recently expanded their line of books on Japanese management to include a new series on system dynamics.

Productivity Press began about 10 years ago with a mission to Japan to study their management practices, explains acquisitions manager Diane Asay. Since then, it has published works on continuous improvement, quality control, employee involvement, just-in-time manufacturing, and other Japanese manufacturing tools. “The mission of Productivity Press has been to help American companies rethink their manufacturing strategies and to introduce methods that will allow them to be cost competitive,” says Asay.

But while the interest in Japanese management tools continues to grow, managers are finding it difficult to integrate these ideas into American companies. The reason, Asay feels, is that American managers don’t understand how these tools relate to the whole company. “Just-in-time doesn’t work, total quality doesn’t work, continuous improvement doesn’t work unless you are able to look at your whole organization and understand the impact of a change in one area to all other areas of the organization,” she explains. “It’s not possible to change your whole approach to ‘the manufacturing world’ or to inventory control without suddenly needing different accounting and marketing systems.”

Japanese managers, Asay believes, have long understood the need to look at their companies systemically. “The Japanese didn’t ever think just-in-time was an inventory ‘solution.’ It’s always been understood as an organizational solution, a strategic solution.”

Need for Systems Thinking

Over the past ten years, Productivity Press has witnessed the development of second-generation American management ideas that have evolved from the Japanese influence. “American managers have been coming up with a lot of questions, needs, and innovations,” Asay notes. Systems thinking addresses those needs by extending continuous improvement principles to the entire company, helping managers better understand and manage the system they work in.

“In a short-term crisis it’s difficult for managers to justify to themselves why they should hang onto their long-term goals,” Asay explains. “That’s why it’s important to have tools that give managers insight into long-term benefits. Systems thinking can show them how to manage short-term crises and how to make trade-offs, giving up a little of the long-term vision so they can give themselves some space in the short-term. That’s important, because when fundamental change starts to happen, things get worse first” (see Systems Thinking in Action, page 8).

Asay adds that the companies that are prospering today—both Japanese...
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and American—are committed to understanding the whole system. "Organizations that understand if you invest for the short-run you could be setting yourselves up for bankruptcy and organizations that understand how to manage the trade-offs between short-term and long-term are the ones that are succeeding," she asserts. "Japanese and American organizations that are applying continuous improvement successfully are the ones that understand the system as a whole and are functioning intelligently in that integrated organization. So I think from a very practical dollars and cents point of view, systems thinking is a needed perspective."

Bridging the Gap

For now the system dynamics series consists of the seminal texts of the field, which give a general overview of its principles. Productivity Press is currently developing other publications that will bridge the gap between the origins of the field and current applications to corporate problems. "What we've got now are advanced books in terms of technical knowledge, with applications that are quite broad. Economic structures and the basic generic mechanisms of supply and demand clearly have implications for businesses, but they are not the specific issues managers deal with every day."

The real challenge, Asay believes, is linking the concepts of systems thinking to managers' daily work: "How do we make the long-term results tangible enough and the complexities of system dynamics accessible enough for managers who are living in short-term crisis worlds?" For a start, Productivity's newer system dynamics offerings will focus more on specific management applications and will be "short booklets, rather than tomes."

They will include several books and articles already in the works, as well as computer simulation models and interactive software that will allow managers to work with simulations in a simple, straightforward way.

The goal is to extend the usefulness of Japanese management tools and ideas for American managers by looking at them through the lens of systems thinking. "We subtitled the

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Calendar

- October 17-19. Business Thinking: A Systems Perspective, Framingham, MA. This two-and-a-half day working session teaches managers how to apply systems thinking to their own work issues. No prior understanding of systems thinking is required. Contact: Stephanie Ryan, Innovation Associates—(508) 879-8301.


- December 5-7. Leadership and Mastery, Boston, MA.

- January 14-16. Introduction to Systems Thinking, Cambridge, MA. This three-day course will introduce managers to the basic principles of systems thinking. Managers will also gain hands-on experience in system dynamics modeling using STELLA and other modeling languages. Contact: Gould-Kreutzer Associates—(617) 497-2926.

- January 16-18. Leadership and Mastery, Boston, MA.


- March 5-8. Leadership and Mastery, Boston, MA.


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series "The Field of Insight" because that's the advantage system dynamics brings—insight into the system," explains Asay. "In continuous improvement, you have to be able to look at causes without blame, and I think systems thinking offers a way to do that. Once we have made that transition, we are in a world that no longer has anything to do with blame—it has to do with learning."

To receive a catalog of or for more information about the system dynamics line of books, contact Diane Asay, acquisitions manager, Productivity Press, P.O. Box 3007, Cambridge, MA 02140. Telephone: (617) 497-5146.


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