

Japanese production management: An evolution—With mixed success

Richard J. Schonberger*

Schonberger & Associates Inc., 177 107th Ave. NE, #2101, Bellevue, WA 98004, United States

Available online 19 May 2006

Abstract

Japanese production management (JPM) became a dominant influence in the field of operations management when, in the early 1980s, knowledge of its main elements became known beyond Japan. Those elements – quick set-up, small lots, cells, kanban, and so on – are well known. Rather than explaining them again, this paper's objective is to explore the sequence of events leading to JPM as a competitive force globally, as well as its impact on theory and practices in operations management. JPM's evolution includes shifting terminologies, fusions and adulterations; limited extensions from manufacturing into services and innovative enhancements, largely of Western origin. Longitudinal research data, based on inventory trends, provide insights on JPM's diffusions and its uneven results. Latter-day puzzling lapses and disappointments, among Japanese as well as Western companies, raise questions about JPM's sustainability, as well as some of its changing manifestations. While the core of Japanese production management, now over three decades old, appears to have become solidly mainstream, its current and future states are problematic.

© 2006 Elsevier B.V. All rights reserved.

Keywords: Operations management history; Just in time; Total quality; Toyota system; Global inventory trends

Hundreds of articles in the business press throughout the 1970s presented the problem: the Japanese export juggernaut was wreaking havoc on Western competition. Ezra Vogel summed up prevailing explanations in his quantum-selling book, *Japan as Number 1: Lessons for America* (1979). Vogel, a social scientist who had lived in Japan for a time after receiving a Harvard PhD, cited enlightened guidance of industry by government ministries, a consensus culture, and other socio-political factors. Vogel failed to mention the *keiretsu* system—groupings of many mutually supportive businesses: the bank-dominated “big six” horizontal *keiretsus*, and the more manufacturing-oriented vertical ones (e.g., the Toyota group made up of nearly 250 companies). Others saw the *keiretsu*, a.k.a., “Japan Inc.”, as a dominant economic force (*Business Week*, 1973; Miyashita,

1994). The notion that production management might also have something to do with the rise of Japan as a first-rate industrial power was still under wraps.

Within a year or 2 of publication of Vogel's book, the wraps were off. Western manufacturers, academics, and consultants had been joining study missions to Japan by the planeload. Those from industry were looking for evidence of unique Japanese production management practices, and they found plenty (see, for example, Burnham, 1983). Having grown up in the “silo system” of functional separation, however, few of the observers were able to see Japanese production management (JPM) as a mutually reinforcing set of “best practices.” Rather, what emerged initially was not one, but three versions, each detailed in an outpouring of books and articles in the first few years of the 1980s:

1. Unique practices in the area of employee involvement.

* Tel.: +1 425 467 1143; fax: +1 425 467 1143.

E-mail address: sainc17@qwest.net.

2. Extraordinary attention to quality using practices collectively known in Japan as total quality control (TQC) or company-wide quality control (CWQC).
3. The production system perfected by Toyota called just-in-time (JIT), or, alternatively, the Toyota production system, today also known as lean manufacturing.

The first, employee involvement, might be seen as centered in the human resources wing of the management field. It deserves consideration in this operations management-oriented paper, however, because employee involvement furthers the second (quality) and third (JIT/lean) aspects of JPM.

The remainder of this paper tracks the evolution of JPM, globally as well as within Japan itself. One assertion is that, while the Japanese contributions remain sound, they gain potency in combination with other management concepts of later, Western origin. Another is that today's synergistic mix of Japanese and non-Japanese best practices seems to have generally raised Western manufacturers to competitive parity. A third assertion (or speculation) has to do with the inability of most companies successfully to mount and sustain the best-practice agenda, even though it consists mostly of rather simple, low-cost, common sense elements. The latter two assertions are supported, in part, by data from a longitudinal "leanness" research project.

The remainder of this evolutionary analysis consists of five sections:

1. The first is a closer look at the three strains of Japanese production management as expounded by early 1980s authors. Call it the first generation of JPM, at least as interpreted in the West.
2. The next section explores a second generation of additional features that had originated in Japan and were late arrivals in the West.
3. The third examines shifts in thought and practice later in the 1980s and into the 1990s. A notable change in thought includes the emergent opinion, among Western adherents, that TQC and JIT/lean are "joined at the hip." Shifts in practice largely stem from Western innovations that dovetail with and enhance the Japanese approaches. Also in this lively period, general team building began to overshadow JPM-oriented employee involvement; and quality methods, pursuit of quick response, and employee involvement found applications in services.
4. The fourth section probes Japan's latter-day period of economic malaise beginning in about 1990. Relevant

to this paper is the role of JPM during this difficult period.

5. The final section, bringing us to the present, sees Japanese core contributions as largely mature and unchanging. This most-recent period has been one of Western innovations in production management concepts that closely relate to the JPM core, but one of hits and, often, misses in their application.

1. First generation: early theory

The idea that there might be a type of management distinctive enough to be labeled Japanese gained prominence in 1981 with release of two widely sold business books: Ouchi (1981), *Theory Z: How American Business Can Meet the Japanese Challenge*; and Pascale and Athos (1981), *The Art of Japanese Management: Applications for American Executives*. These authors and a few others had been airing similar messages in academic journals for some years prior to the books; for example, Johnson and Ouchi (1974); Pascale (1978). The focus of the books and articles was on the softer side of management: lifetime employment, lock-step promotion, broadened career paths, suggestion systems, harmony, consensus, commitment to the firm, and – what got the most attention – quality circles.

1.1. QC movement

Theory Z included an appendix devoted to quality circles (QCs). Originally named quality-control circles, as usually translated from the Japanese, the term was shortened in the West by omitting the word control. QCs had received plentiful published attention in the 1970s. See, for example, a bibliographical monograph compiled by Abbott and Eckstein (1981), which lists a few dozen early references on QCs. According to one source Lockheed and Honeywell became, in 1974, the first (of many) companies in the United States to implement circles ([Introduction to the International Association of Quality Circles](#)). Promoted by the growing membership of the International Association of Quality Circles, founded in 1974 (Ingle, 1982), QCs became the hottest Japanese management topic by the early 1980s. Later, as QC fervor began to wane, academics and consultants came up with a name change, to small-group improvement activities, which removed the limiting word, quality. That broadened the concept's scope, opening it to more than just its dominant home, manufacturing. Many organizations, private and public, service and industrial, were

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات