Chapter 18
Toward a More Pragmatic Knowledge Management:
Toyota’s Experiences in Advancing Innovation

Steven Cavaleri
Central Connecticut State University, USA

ABSTRACT
Managers often conceive knowledge management processes in ways that unduly limit its potential. Toyota has avoided falling into this narrow paradigm trap by creating its own version of knowledge management that is well suited to its culture. They have woven their knowledge management strategy together with process improvement and innovation methods. Toyota’s knowledge management system is a theoretically sound, yet practical, business approach built on a set of scientific principles based on a philosophy known as Pragmatism. This chapter examines how Pragmatic principles used by Toyota can achieve superior innovation results. The chapter concludes by explaining why the Pragmatic approach delivers superior performance at lower cost than conventional knowledge management methods.

INTRODUCTION
Some researchers see organizational innovation as a product of individual skills, such as creativity and imagination. Conventional wisdom regards it as being an art, not a science. Still others, such as many management theorists, regard innovation as being the organizational outcome of a properly designed business strategy. In their eyes, strategy becomes the activator of predictable organizational processes where ‘B’ follows ‘A’ - as if a clockwork. They envision a tightly controlled system capable of driving innovative ideas through a pipeline...
flowing through various phases of development toward an outcome — releasing a product or service to market. For example, Bacon and Butler (1998:11) define innovation as a commercially successful use of invention, and invention as being a “solution to a problem (unmet needs)”. Similarly, Davila et al (2006), propose that innovation IS a management process — one requiring specific tools, rules, and discipline.

This chapter’s purpose is to explore an alternate paradigm for innovation. It suggests a strategy based in the logic of scientific reasoning and experimentation. Specifically, this alternative spurs innovation by radically improving the quality of knowledge held by an organization’s members. Its theoretical basis is a system designed to improve the quality of scientific discoveries known as Pragmatism. Pragmatism’s founder, scientist Charles Sanders Peirce, set forth a number of principles for being pragmatic in improving the effectiveness of one’s action. Many management theories, such as Total Quality Management, incorporate pragmatic principles. Peirce’s (1958:293) approach to scientific discovery begins with the pragmatic maxim that holds we should always, “Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object.”

This maxim is the basis for an innovation strategy that focuses on conducting frequent mini-experiments throughout an organization. For example, Spear (2009:215) cites an example of how plant-floor workers at Aisin—a first-tier supplier for Toyota — routinely use such an experimental approach to improving the quality of their common knowledge.

“What is innovation?”

What is innovation? Research by Baregheh (2009:1334) found the term innovation describes, “the multi-stage process whereby organizations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace.” By contrast, such flow-oriented definitions oppose those that focus on identifying the sources of knowledge necessary to produce innovations. For example, scholars, such as Peirce and noted economist Joseph Schumpeter (1950), view knowledge as being the primary force behind innovation. Peirce’s main interest in studying knowledge was in discovering how it drives processes of scientific discovery, whereas Schumpeter’s primary interest was in how knowledge influences the entrepreneurial economic potential of a firm. Peirce studied how scientists conduct research and how their methods lead to breakthrough innovations. He concluded that scientific innovations often happen suddenly, but
Related Content

Tacit Knowledge Sharing and Value Creation in the Network Economy: Socially Driven Evolution of Business
www.igi-global.com/chapter/tacit-knowledge-sharing-and-value-creation-in-the-network-economy/191048?camid=4v1a

Working Anywhere and Working Anyhow?: A Tension-Based View on ICT and the Coordination of Work
www.igi-global.com/chapter/working-anywhere-and-working-anyhow/180108?camid=4v1a

Technological Frames Recursive Construction Approach: A Systemic Theory for Information Technology Incorporation in Organizations
www.igi-global.com/chapter/technological-frames-recursive-construction-approach/7264?camid=4v1a

Improving the Retailer Industry Performance Through RFID Technology: A Case Study of Wal-Mart and Metro Group
www.igi-global.com/chapter/improving-the-retailer-industry-performance-through-rfid-technology/209861?camid=4v1a